

**JPRS 77086**

**31 December 1980**

# **East Europe Report**

**ECONOMIC AND INDUSTRIAL AFFAIRS**

**No. 2077**



**FOREIGN BROADCAST INFORMATION SERVICE**

#### NOTE

JPRS publications contain information primarily from foreign newspapers, periodicals and books, but also from news agency transmissions and broadcasts. Materials from foreign-language sources are translated; those from English-language sources are transcribed or reprinted, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [ ] are supplied by JPRS. Processing indicators such as [Text] or [Excerpt] in the first line of each item, or following the last line of a brief, indicate how the original information was processed. Where no processing indicator is given, the information was summarized or extracted.

Unfamiliar names rendered phonetically or transliterated are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear in the original but have been supplied as appropriate in context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by source.

The contents of this publication in no way represent the policies, views or attitudes of the U.S. Government.

#### PROCUREMENT OF PUBLICATIONS

JPRS publications may be ordered from the National Technical Information Service, Springfield, Virginia 22161. In ordering, it is recommended that the JPRS number, title, date and author, if applicable, of publication be cited.

Current JPRS publications are announced in Government Reports Announcements issued semi-monthly by the National Technical Information Service, and are listed in the Monthly Catalog of U.S. Government Publications issued by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Indexes to this report (by keyword, author, personal names, title and series) are available from Bell & Howell, Old Mansfield Road, Wooster, Ohio 44691.

Correspondence pertaining to matters other than procurement may be addressed to Joint Publications Research Service, 1000 North Glebe Road, Arlington, Virginia 22201.

31 December 1980

# EAST EUROPE REPORT

## ECONOMIC AND INDUSTRIAL AFFAIRS

No. 2077

### CONTENTS

#### CZECHOSLOVAKIA

##### Briefs

New Prague Port	1
Car Sales Drop	1

#### GERMAN DEMOCRATIC REPUBLIC

IPW Director Discusses Problems of Strategic Balance (TRIBUNE, 17 Oct 80; IPW-BERICHTE, Oct 80).....	2
'Insane Strategy,' Important Initiatives, Max Schmidt Interview Need for Continued Dialogue, by Max Schmidt	
West German Analysis of GDR Combine System Development (II) (Kurt Erdmann, Manfred Melzer; DEUTSCHLAND ARCHIV, Oct 80).....	28
Working Conditions Contribute to Efficiency, Job Satisfaction (TRIBUNE, 29, 22 Aug 80).....	56
Tasks of Industrial Psychology, Baerbel Matern Interview Importance of Work Safety, Horst Rehtanz Interview	

#### POLAND

Hard Realities of Economic Situation Described (Stanislaw Chelstowski; ZYCIE GOSPODARCZE, 26 Oct 80).....	65
Study Assesses Profitability of Livestock Production (Adam Roznoch; NOWE ROJNICTWO, 1-15, 16-21 Jul 80).....	71

Briefs

Sweden-Poland Ferry Discontinued

89

ROMANIA

Successes of Aeronautical Industry Discussed

(George Popescu; VEAC NOU, Nov 80).....

90



## CZECHOSLOVAKIA

### BRIEFS

NEW PRAGUE PORT--The fluvial port in Prague-Holesovice can no longer serve the volume of the current shipping, and construction of a new port in Radotin, south of Prague, will begin in 1982. The new 21-berth facility will be one of the most modern ports in Central Europe, capable of handling 3 million tons of goods yearly. The port should become operational after 1990. [Bratislava PRACA in Slovak 10 Dec 80 p 2]

CAR SALES DROP--The price increase of gasoline in the CSSR has not only resulted in lower gasoline sales, but also lower sales of cars. Consequently a 9.2 percent drop in car sales has been registered in 10 months of 1980, the figures being about the same for both new and used cars. Car repair facilities have less customers and the Motokov enterprise has on hand thousands of unsold cars. [Prague MLADA FRONTA in Czech 9 Dec 80 p 2]

CSO: 2400

## GERMAN DEMOCRATIC REPUBLIC

### IPW DIRECTOR DISCUSSES PROBLEMS OF STRATEGIC BALANCE

#### 'Insane Strategy,' Important Initiatives

East Berlin TRIBUNE in German 17 Oct 80 p 7

[Interview by Hans Kramer with Prof Dr Max Schmidt, director, Institute for International Politics and Economics, East Berlin: "Military-Strategic Balance Helps Secure Peace--Nuclear War Strategists in Pentagon and NATO Gamble With Security of Nations." Some of Professor Schmidt's answers draw heavily on an article he has written for his institute's monthly journal. A translation of this article follows this interview]

#### [Text] Biographic Sketch

Prof Dr Max Schmidt was born on 6 January 1932 into a working-class family. He has taught at the Edwin Hoernle civil service academy in Weimar. After completion of his studies, he held a research post at the GDR academy for political science and jurisprudence. He then graduated from the SED central committee's institute for the social sciences. After working for the SED central committee for several years, he was named director of the institute for international politics and economics and head of the research council into questions of imperialism in 1973. On a number of previous occasions Prof Schmidt has commented on topical world affairs issues in the pages of TRIBUNE.

[Question] The resolutions and proposals put forward by the member states of the Warsaw Pact such as the declaration of last May and the foreign policy goals of our own GDR have all underscored the objective and urgent necessity for progress in military detente time and again. What are the reasons for that ?

[Answer] As everyone can see, the world situation has become a good deal more aggravated in the eighties. The results of the process of political detente which were of value to all peoples, particularly to those in Europe, in the seventies are now in danger. Instead of taking steps to relax tensions, the leading circles of the United States and of NATO are now pursuing a policy of confrontation. They are stepping up the arms race and intensifying the conceptual and material preparations for war. The conduct of the arms limitation talks is being undermined and SALT II, a treaty so very important for peace is not going into effect as a result of its ratification being blocked in the United States.

At the same time, development, production and deployment of new nuclear and "conventional" weapons of mass destruction are being forcefully pursued by NATO on the basis of its 1978 long-range program and its December 1979 resolution.

The efforts by the most aggressive forces of imperialism to do away with the existing balance of power and to establish military superiority by engaging in greatly stepped-up arms programs is casting a kind of pall over the international arena.

In view of this, continuation of detente tied to disarmament is and will remain the cardinal question for the eighties, as Erich Honecker has recently stressed once again.

[Question] You have spoken of military balance of power. What exactly is meant by this ?

[Answer] The concept of military-strategic balance of power as a pre-condition for peace is something relatively new. It was first used deliberately by the socialist countries who look upon it as one of the bases and as the guarantee for peaceful coexistence between countries with different economic systems. It involves the recognition of the fact that approximate parity in military strength between the USSR and the United States and between NATO and the Warsaw Pact has been reached as a result of a lengthy process.

And it also involves recognition of the fact that given present power relationships in the international class struggle this military-strategic balance must serve as the basis for reaching agreement on limiting, restricting and at length reducing armaments while preserving intact the security of all participants.

[Question] Could one say that there now is approximate military-strategic balance between the two power blocs ?

[Answer] Yes. The member countries of the Warsaw Pact have repeatedly pointed out that there now is military balance in Europe and in the world as a whole. This assessment is based on an analysis of all the factors which need to be taken into account, including an overall comparison of nuclear and conventional weapons systems, their number and firepower, of troop strengths and of the strategic situation.

Geographic, logistic and economic factors must also be considered. To be sure, the military power relationship is extremely difficult to assess. But one must make a realistic start on the basis of the sum total of opposing military forces. Up until recently, members of the U.S. government and of other NATO countries have more than once attested to the fact that approximate parity exists as between the USSR and the United States and the Warsaw Pact countries and NATO. This was underlined in particular by the American President on the occasion of the signing of the SALT II treaty in Vienna in June 1979. Chancellor Helmut Schmidt and other West European political leaders have also called attention to the existence of approximate parity.

[Question] What significance is there to the existence of military balance ?

[Answer] The evolution, the existence, operation and maintenance of approximate military-strategic balance between the main forces of the two different social systems in the world and of the countries allied with them is an important pre-condition for the preservation and the strengthening of peace.

This has been a decisive factor in starting on the road to political detente based on the efforts of the socialist countries and the position taken by realistic forces in the western world; a process which has been of political and economic benefit to all concerned and has opened up new vistas.

It has been a major element in thus far being able to prevent the outbreak of a third world war which is to say a war involving missiles and nuclear weapons.

It has been the principal factor for Europe, which twice has been the starting point of a world war, now experiencing the longest period of peace in this century and for the continent itself emerging as an example of peaceful coexistence between countries with different social systems.

It has provided the very basis on which successful negotiations on arms limitation and disarmament can be conducted, as SALT I and SALT II clearly demonstrate.



[Question] You have spoken of the recognition of military balance on the part of Western politicians. But what is their real attitude towards it ?

[Answer] I have already indicated by my answer to your first question that the efforts by the United States and NATO to do away with balance and to establish military superiority are the main causes for the aggravation and complication of the world situation.

[Question] What are the indications for this ?

[Answer] It cannot be overlooked that there has been a growing trend recently of members of Western governments and Western military figures --above all in the United States-- calling for making war or at least the use of military power in the service of political goals and based on superiority more practicable or efficacious. The so-called State of the Union message by the American President in January 1980 designated the strengthening of American military power and the attainment of military superiority as the priority goal of the United States in the eighties.

[Question] In this connection, how is the American President's so-called directive 59 to be viewed ?

[Answer] This directive contains a new definition of U.S. strategy for nuclear warfare. The targets of U.S. nuclear missiles are to be varied and to be concentrated primarily on a wide range of military objectives in the USSR. In essence, this re-definition is aimed at lowering the nuclear threshold in order to carry out a preventive nuclear strike to annihilate the USSR and to be in a position to wage "limited" nuclear war.

This insane strategy is not really new. In fact, it has always gone hand-in-hand with the aims of aggressive circles in the United States wishing to confront the Soviet Union from a position of strength and superiority. But the attainment of strategic parity by the Soviet Union and the inability of the United States to carry out a devastating first strike forced American governments to recognize this parity, as evidenced among other things by the SALT agreements.

Now, the goal of overcoming military-strategic balance is openly being pursued again. In doing so, the United States are speculating on the qualitative and quantitative development of new weapons systems which are to provide a new material basis for their efforts aimed at attaining military superiority, primarily as regards a nuclear first strike capability.



They are hoping for greater accuracy, greater explosive yield and a high level of mobility for the MX and Trident missile systems among others.

[Question] How does the NATO missile resolution of December 1979 fit in ?

[Answer] It is absolutely correct to view this resolution in connection with U.S. nuclear strategy. In addition to the 8,000 nuclear units already positioned in Western Europe and the 3,000 nuclear delivery systems and the 1,000 delivery systems on board of warships in the Atlantic and the Mediterranean, that is to say in addition to the so-called Forward Based Systems, plans are to deploy Pershing II's and Cruise missiles with a range of 1,800 to 2,500 kilometers. Their multiple warheads, more accurate and harder to defend against, could hit different targets simultaneously. Early warning time for these medium-range missiles is reduced to about 6 minutes as opposed to 30 minutes for strategic missiles. Thus, it is not a matter of "simply modernizing" obsolete weapons, as it is said, which have the same purpose as heretofore, but of introducing strategic weapons which would reach from West European soil far into Soviet territory up to the foothills of the Urals. The NATO decision thus has the aim of bringing about a fundamental change in the European strategic situation.

[Question] What dangers are there, in your view, in this militant concept for nuclear war ?

[Answer] First of all, this strategy does not aim for reducing nuclear war but for materially preparing for it. As this is being done, the insane idea is being put forward that limited nuclear war can both be waged and won. But it is totally unrealistic to believe in the possibility of a limited or regional nuclear war. Any nuclear attack would inevitably lead to a direct confrontation including retaliatory strikes forthwith.

[Question] What implications does this have for Europe ?

[Answer] As a consequence of the NATO missile resolution, the danger of atomic conflict, particularly in Europe, has increased. The deployment of new medium-range missile systems in Western Europe within the context of the new U.S. strategy turns these countries into atomic hostages of the United States to all intents and purposes. While the United States mean to use these additional missile systems to gain substantial military advantages as regards the USSR, the nations of Western Europe for their part are called upon to bear the "nuclear risk." The arms race is further intensified.

[Question] And what does it mean for the socialist countries ?

[Answer] In view of the acute threat, the socialist countries will have to provide the necessary measure of military security for themselves. History has proven that the socialist states, headed by the USSR, have all the means necessary to meet the efforts of the NATO countries to upset the military balance.

[Question] You are now touching on our own position. Could you be more precise ?

[Answer] Let me summarize it briefly: the socialist states do not aim for military superiority or for altering the strategic-military balance in their favor which has evolved in the course of time. This applies equally to the strategic balance that exists between the USSR and the United States and between the Warsaw Pact countries and NATO in the European area.

"Our efforts." Leonid Brezhnev has said, "are directed at not having a first or a second strike happen or, for that matter, any nuclear war at all. Our approach to this question is the following: the defense capabilities of the Soviet Union must be such that no one will dare disturb our peaceful life. Our policy does not aim at superiority in armaments but at their reduction and at a reduction of military confrontation."

This position also was part of the Warsaw Pact declaration of last May and was the basis of concrete initiatives undertaken by the socialist states at the the 35th General Assembly of the United Nations, at MBFR in Vienna and in other forums.

[Question] Which of these initiatives are most important ?

[Answer] The primary objective of all our efforts and proposals is to take further steps to reduce the danger of nuclear war. At the current U.N. General Assembly session, the USSR has countered the American nuclear war concept by submitting a list of the most urgent measures aimed at reducing the danger of war. It calls first of all for the ratification of SALT II by the United States; it calls for a start of negotiations on medium-range missiles; for tangible results at the Vienna talks and in connection with the Madrid conference and for the convocation of a conference on military detente and disarmament in Europe. There are concrete proposals on all these matters on the table.

Let me point out the special importance of the USSR initiative aimed at overcoming the impasse in medium-range nuclear weapons negotiations created by the NATO resolution of December 1979.

There is a need for negotiations on medium-range nuclear weapons in Europe-- even prior to the ratification of SALT II which, as is well known, has thus far been thwarted by the United States.

There is a need to establish an organic link between these negotiations and the problems raised by the so-called "forward based" American nuclear weapons. If any arms limitation agreements are reached in these talks, they could be taken up after SALT II has been ratified.

Erich Honecker has said that these proposals are important because "they serve to overcome the impasse in the disarmament dialogue created by NATO missile resolution adopted in Brussels."

[Question] What role do you see labor unions playing in this endeavor?

[Answer] Ever since the Stockholm appeal in 1950 to the success of which the WFTU made a great contribution, as is well known, the unofficial organizations have grown rapidly in significance-- the way-stations being their fight against the neutron bomb over the past few years; their support for the holding of a European security conference and their active role at the U.N. special session on disarmament. The international trade union movement has had a large share in this. After all, it is the working class which plays the largest part in the worldwide efforts for peace and detente. Just the same, the recent meeting of the WFTU general council and of the WPC have both shown that more strenuous efforts must be made to combat the arms race and the danger of war.

"It is not enough to be shocked! Nor is it enough to be worried! The peoples have the power to safeguard peace which is their birthright! The time to act is now!" This Sofia appeal of the WPC is addressed to us as unionists, too.

#### Need for Continued Dialogue

East Berlin IPW-BERICHTE in German Vol 9 No 10, Oct 80 pp 1-9

[Analyses-Problems' feature article by Prof Dr Max Schmidt, director, Institute for International Politics and Economics, East Berlin: "Military-Strategic Balance, Political and Military Detente: U.S. Nuclear War Strategy Aims at Military Superiority--Safeguarding Peace Requires Balance of Forces--Arms Limitation and Disarmament Versus Concept of Nuclear First Strike"]



Text7 The start of the eighties has witnessed a marked aggravation of the world situation. The results of the process of political detente which benefited all peoples, particularly those in Europe, in the seventies are now endangered. Instead of taking steps toward detente, the ruling circles of the United States and of NATO are now pursuing a policy of confrontation. The system of international relations is being strained to the utmost by the discrepancy between the readiness to agree to arms limitation and disarmament manifested in numerous declarations and treaty documents and the heightened activity on the part of the leading NATO countries which points in the opposite direction, heating up the arms race further and intensifying conceptual and material preparations for war.

The chances of success of the arms limitation negotiations are being undermined; the SALT II treaty cannot take effect, as important as it is to peace, because its ratification is being blocked in the United States and all this while the development, production and deployment of new nuclear and conventional weapons of mass destruction by NATO is proceeding apace on the basis of its long-range program of 1978 and the December resolution of 1979.

#### Balance of Power, Equal Security, Peaceful Coexistence

The most aggressive forces of imperialism are mounting a vastly stepped-up arms program in an attempt to do away with the existing balance of power and to achieve military superiority while refusing to supplement political detente with military detente. This has cast a kind of pall over the international arena. Safeguarding peace has thus become the cardinal issue of our time, as Erich Honecker, secretary general of the SED central committee, has said. "We must continue to work for detente in the eighties, tying it to an orientation toward disarmament."<sup>1</sup>

This calls for building on the foundations laid for the benefit of mankind in the seventies but which certain imperialist circles do not seem able to accept. Developments during that time had created a world situation which opened up favorable opportunities in the fight for peace. Peaceful coexistence between states with differing social systems was beginning to take concrete political and economic shape. Multilateral and bilateral treaties and agreements proved their usefulness in improving international relations. An important factor has been and still is the evolution, the existence, operation and maintenance of an approximate military-strategic balance between the main forces of the two different social systems and of the countries allied with them. This balance is an important pre-condition for preserving and strengthening peace.

It has been a decisive factor in starting on the road to political detente, based on the efforts of the socialist countries and the main realistic-minded forces in the capitalist countries; a process which has been of political and economic benefit to all concerned and has opened up new vistas.

It has been a major element in thus far being able to prevent the outbreak of a third world war, which is to say a war involving missiles and nuclear weapons.

It has been the principal reason that Europe, which twice has been the starting point of a world war, is experiencing the longest period of peace in this century and that the continent itself is emerging as an example of peaceful coexistence between countries with differing social systems.

It has provided the very basis on which successful negotiations on arms limitation and disarmament can be conducted, as SALT I and SALT II have shown.

The concept of military-strategic balance of power as a pre-condition for peace is something relatively new. It was first used deliberately by the socialist countries who look upon it both as one of the foundations and as a guarantee for peaceful coexistence between countries with differing social systems. This involves recognition of the fact that given present power relationships in the international class struggle this military-strategic balance must serve as the basis for reaching agreement on limiting, restricting and ultimately reducing armaments while preserving intact the security of all participants.

The member countries of the Warsaw Pact have repeatedly pointed out that there now exists "a military balance in Europe and in the world as a whole."<sup>2</sup> This assessment is based on an analysis of all the factors which need to be taken into account, including an overall comparison of nuclear and conventional weapons systems, their number and firepower, of troop strengths, of the strategic situation, of the consequences of possible surprise attacks and the effectiveness of defense installations. Geographic factors such as length and strategic location of borders, logistic and economic factors among others must also be considered.

To be sure, the military power relationship is extremely difficult to assess. To analyze it, a great number of quantitative and qualitative factors as well as global and regional ones must be taken into consideration. But, to be realistic, one must above all start out on the basis of the sum total of the military forces opposing each other. Any attempt to remove individual weapons systems or individual countries or even regions from their proper



context and to compare them will inevitably distort the picture. Overall, strategic balance is a reflection of the fact that neither side possesses or has hopes of attaining a devastating "first strike" capability.

Right up to the present, members of the U.S. government and of other NATO countries have more than once attested to the fact that approximate parity exists as between the USSR and the United States and the Warsaw Pact countries and NATO. This was underscored in particular by the American President on the occasion of the signing of the SALT II treaty in Vienna in June 1979. Chancellor Schmidt of the FRG and other West European political leaders have also called attention to the existence of approximate parity.

The existing balance of power clearly calls for another dimension in international relations: the principle of equal security which makes it incumbent upon all sides not to aim for preponderance and military superiority and, most importantly, to have this principle serve as the basis for all negotiations and agreements on arms limitation, arms reduction and disarmament.

In this sense, the principle of equal security has been upheld both in multilateral agreements such as the final document of the U.N. special session on disarmament in 1978 and in bilateral agreements such as the joint USSR-U.S. communique in Vienna in 1979 and agreements between the USSR and the FRG, the USSR and France and others.

#### **Efforts To Attain Military Superiority Endanger Balance of Power**

In view of the present international situation the question is how this fundamental aspect of peaceful coexistence is being viewed. This calls for a more exact analysis of intentions, doctrines and actions along the following lines: Are these efforts directed toward recognition of this balance, toward the reduction of the level of military confrontation and toward arms limitation based on the aforementioned principle or is this imperative being disregarded.

It cannot be overlooked that there has been a growing tendency recently of members of government and military leaders of the capitalist countries --particularly the United States-- demanding openly that war or military power as an instrument of policy based on superiority be made practicable again or be employed more efficaciously. On the occasion of a visit to the Pentagon, U.S. President Carter declared that he would see to it that the United States remains the premier military power in the world.<sup>3</sup> He thus clearly oriented American arms and military policy toward attainment of military superiority.

Testifying before the Senate foreign relations committee on the goals of increased U.S. and NATO arms programs, U.S. secretary of defense Harold Brown said that the purpose was to "surpass" the Warsaw Pact; to "gain a clear advantage."<sup>4</sup> Appearing before the armed services committee later, he asked for an increase of his military budget by saying: "We must now decide whether we intend to remain the strongest nation on earth."<sup>5</sup> The quest for military superiority also came up in speeches given by former secretary of state Henry Kissinger and former NATO commanding general Alexander Haig at a conference of military experts in Brussels in early September 1979 on the subject of "NATO and the Next 30 Years." "Their statements lead to the conclusion," an FRG press report said, "that they are looking for superiority instead of approximate parity."<sup>6</sup>

President Carter's state of the union message of January 1980 lists concrete programs which, if carried out, would lead to a breach of approximate military parity as between the USSR and the United States and the attainment of American military superiority. The strengthening of the military power of the United States and its allies is given top priority in the eighties. In the current fiscal year alone, U.S. military expenditures will increase by \$20 billion and by the middle of the eighties the U.S. military budget is to be more than \$200 billion.

Special emphasis is being placed on strengthening the nuclear missile arsenal. Development and production of qualitatively newer strategic offensive weapons systems, among them the MX missiles, fixed-wing missiles and Trident missiles, are proceeding. A start has been made on the development of an interventionist "rapid deployment force" together with a special fleet of floating naval bases and an air transport fleet capable of transporting large-size units to the farthest reaches of the earth.

In political science communities in the capitalist countries voices justifying this policy of military power and the deployment of it are becoming louder. R Kennedy of the U.S. Army College's Strategic Studies Institute calls the ability to resort to force a pre-condition for successful negotiation and defines the function of military power as being "its ability to threaten and, if necessary, to resort to military power so as to force a preferred point of view upon the world order."<sup>7</sup> So much is clear: The quest of the United States for military superiority is to serve the goal of "forcing the point of view preferred" by U.S. imperialism upon the world order.

The heightened arms buildup by the leading NATO power is based on designs for worldwide expansion and not on U.S. security interests. Thus the former American diplomat Arthur M. Cox wrote as long as 5 years ago: "Brookings Institute analysts believe the defense budget could be cut in half, if our only object were to defend the territory of the United States."<sup>8</sup> In the meantime, U.S. arms expenditures have escalated to such an extent that the discrepancy between security needs and expansionist designs has widened even more. The United States is the only country which disposes of a worldwide system of military bases in 114 countries.<sup>9</sup>

#### 'New' U.S. Nuclear War Strategy

In this connection the most recent decision of the President of the United States relating to U.S. nuclear strategy must be viewed with considerable alarm. Jimmy Carter signed "directive 59" which calls for varying the targets of the strategic nuclear missiles. Essentially, this change is designed to carry out the first strike against military objectives in the Soviet Union, to lower the nuclear threshold so as to be able to wage a limited nuclear war.

This concept of a limited strategic nuclear war against the USSR is not new. It was developed as long ago as 1974 by the then U.S. defense secretary Schlesinger and its origins, in fact, go back even further than that. When all is said and done, it always conformed to the designs of the forces opposed to detente which mean to confront the Soviet Union from a position of strength and superiority.<sup>10</sup>

The attainment of strategic parity by the Soviet Union and the inability of the United States to carry out a decisive and devastating strike forced the various U.S. governments to recognize this parity situation. This was manifested in the documents relating to the limitation of strategic offensive weapons and missile systems of 1972, in the treaty on the prevention of nuclear war of 1973 as well as in later protocols.

But there always were powerful forces among the ruling circles of the United States which were unwilling to accept strategic parity. They were constantly looking for military superiority which they define as the capability of carrying out a devastating first strike with superior weapons systems. The quest to attain such a first strike capability has never been relinquished by any U.S. government. Their approach to arms control and disarmament agreements has been and always is tied to the option of leaving the way open for once again attaining military superiority. This was particularly apparent in the debate on SALT II in the United States.<sup>11</sup>



Contrary to the official pronouncements of the American government that it is prepared to maintain parity vis-a-vis the USSR and is cognizant of the danger of a violation of the principle, there are renewed attempts now to aim at overcoming the military-strategic balance both materially and conceptually. The United States is basing its efforts on the qualitative and quantitative development of new weapons systems designed to provide a new material foundation for its quest after military superiority, primarily in the sense of attaining a nuclear first strike capability. There are three aspects relating to the qualitative factors upon which they are basing their hopes.

The first factor is the accelerated improvement of the accuracy of the nuclear missile systems; secondly, they are trying to increase the strength of the warheads and thirdly, they are trying to perfect so-called invulnerability or at least to make it more difficult to defend against U.S. weapons systems.

In this way they are attempting to develop the capability for a "disarming" first strike. A start was made as long ago as late 1977 when 300 Minuteman III missiles were equipped with the MX-12a nuclear warhead which is twice as strong and as accurate as its predecessor. But with the signing of directive 59 the following new weapons systems are coming into play.

First, there is MX, the intercontinental mobile ballistic system of land-based nuclear missiles. 200 of these have been included in the U.S. arsenal. Based on statements of U.S. experts, these missiles have a destructive capability 20 times as great as that of Minuteman III due to their greater accuracy and strength; they are mobile and therefore considered invulnerable.

Secondly, there is the development and deployment of sea-based Trident II missiles with individually controllable and maneuverable warheads. Each U.S. atomic submarine, equipped with 24 of these missiles, is capable of annihilating at least 200 fortified military targets. A report prepared by the U.S. arms control and disarmament agency refers to these missiles as first strike weapons with a significant potential for destroying priority targets.

Thirdly, there is the development of new types of aircraft and missiles which are said to be insensitive or marginally sensitive to radar. According to U.S. defense secretary Brown, they are already in the testing stage and should, he says, alter the military balance considerably. Clearly, the new assessment of nuclear strategy undertaken by directive 59 is based in large part on these systems.

Fourthly, in the light of the President's directive, there is a need to assess the decision of 12 December 1979 relating to the development and deployment of U.S. medium-range nuclear missile systems (Pershing II and Cruise) in Western Europe. In view of strategic parity between the USSR and the United States, U.S. political leaders and military planners, in seeking renewed superiority, are concentrating not only on the development of new strategic weapons systems but also on regional aspects, which is to say a shift of "regional balances of power" in their favor. In this, they assign highest priority to Europe. It is considered a particularly important arena of military confrontation with the Soviet Union and the member states of the Warsaw Pact.

The so-called Schlesinger report set the course in this direction in 1975. In positing alleged Soviet aggressive designs against Western Europe and the deterrent function of NATO, the report said that "the threat of mutual annihilation narrows the range in which enemy actions can be deterred by strategic forces and places greater emphasis on deterrence by medium-range missiles and conventional forces."<sup>12</sup>

As long ago as 1975 priority was thus given to increasing the NATO medium-range missile arsenal as part of a long-range strategic program whose point of departure was actual military-strategic balance and by no means Soviet military superiority. In the meantime, the present U.S. defense secretary Harold Brown has come out with much clearer and more comprehensive language. In his report to Congress on the proposed military budget for fiscal year 1980/81, he said: "In our view, NATO needs a strategic 'triad' of its own which is different from ours...It must dispose of nuclear-strategic forces, tactical nuclear weapons and non-nuclear forces."<sup>13</sup>

In practical terms, this comes down to dual military-strategic superiority. According to this scheme, the nuclear-strategic forces of the USSR would be opposed both by those of the United States and those of NATO. The first line would be occupied by the "Euro-strategic" weapons systems pursuant to the NATO resolution of December 1979 whereas the new weapons systems Pershing II and Cruise are clearly intended to provide a first strike capability. The 1975 Schlesinger report which "justified" the stronger emphasis on medium-range missiles had already provided in no uncertain terms for the nuclear first strike option. Although "clearly limited, the attack should be carried out with sufficient force and decisiveness in order effectively to alter the conceptions of the Warsaw Pact leaders and to create conditions favorable to negotiations."<sup>14</sup>



Now this was by no means a threatening gesture of a mere tactical nature for as M. Kahler of Princeton University points out there are indeed forces active in the United States today which hold the principle of "assured mutual annihilation" to be obsolete and which are therefore coming out in favor of making nuclear weapons "applicable."<sup>15</sup> And they are not restricted to the United States. Commenting on directive 59, FRG military analyst A Weinstein, known for his outspoken support for the aggressive NATO strategy, wrote on 6 September 1980: "It is no longer true that there can be no victors in a nuclear war. It would depend on what kind of nuclear war is waged. Whoever carries out a first strike with precision weapons and in so doing destroys the offensive weapons of the enemy has a chance of winning."<sup>16</sup>

#### NATO Missile Resolution Aims at Changing Military Balance

What significance does the NATO resolution of December 1979 have with respect to the military power relationship? To add to the 8,000 nuclear units already positioned in Western Europe and the 1,000 delivery systems on board of warships in the Atlantic and the Mediterranean, it has been decided to produce qualitatively new American nuclear weapons and to deploy them in Western Europe, namely Pershing II missiles as well as fixed-wing missiles (the so-called Cruise missiles) with a range of 1,800 to 2,500 kilometers and an in-flight time of mere minutes. Their multiple warheads, being more accurate and harder to defend against, could hit different targets simultaneously. Early warning time would be reduced from 30 to 4 to 6 minutes.

Thus, it is not a matter of "simply modernizing" obsolete weapons, as it is said, which have the same purpose as heretofore, but of introducing strategic weapons which would reach from West European soil far into Soviet territory up to the foothills of the Urals. The NATO decision thus has the aim of bringing about a fundamental change in the strategic situation in Europe and at the same time undermines the agreements reached in the SALT II treaty. Bundeswehr major general (ret) G Bastian along with many other Western politicians and analysts considers this to be a "new situation" for the Soviet Union "in that the USSR does not have equal opportunities, namely to pose a nuclear threat to the United States with medium-range weapons."<sup>17</sup> So it may be said that the United States has set its course on developing a first strike capability in the European theater as well.

The NATO position relating to the proposed stationing of new medium-range nuclear missiles in Europe is being justified above all with the alleged need for "modernisation." This position does not conform to reality-- either historically, politically or militarily. As to the historical aspect, it may be recalled that NATO's original tactical decision to station new American missiles

does not date from December 1979 but from the fall of 1977 when it was reached at the NATO nuclear planning group meeting in Bari. The official report of the U.S. Arms Control and Disarmament Agency for FY 1980 states that the budget decisions for the development of the Pershing II missile were reached as long ago as 1974.<sup>18</sup> The Soviet missiles, however, which have repeatedly been used as ex post facto "justification" were an unknown quantity until 1975 by the United States' own admission. And the funds for the development of the fixed-wing missiles were decided upon even earlier, in 1972. Furthermore, it is worth recalling the previously mentioned American long-range plans for the attainment of military superiority which assign a labor-sharing role to the medium-range missiles.

As for the political aspect, long before the new medium-range nuclear systems of the United States and of NATO were decided upon and prior to the modernization of its own arsenal, the USSR proposed inclusion of medium-range weapons in the SALT negotiations. But, as the imperialist camp admits, these weapons were excluded by the United States.<sup>19</sup> Similarly, the Soviet proposals of 1979 for negotiations on the medium-range arsenal were simply brushed aside.

As for the military aspect, it should be pointed out that there is approximate parity in the medium-range nuclear weapons field, too, if not only similarity of available means but similarity of actual effectiveness are considered.

To justify the "modernization" lie, all sorts of calculations were being offered in the NATO countries, which were self-serving and exceeded the bounds of exaggeration. A particularly revealing example for this type of manipulation is a study commissioned by a group of CDU Bundestag deputies. According to the study, "Soviet superiority over NATO in short-range missiles stands at 4.5:1."<sup>20</sup> But Hamburg peace researcher Dieter S Lutz has taken a close look at the calculations on which this particular manipulation is based. He has found "that there is no way in which NATO military inferiority can be deduced in the TNF field. On the contrary, it cannot be ruled out that the Warsaw Pact may have to counter quantitative and qualitative improvements in the NATO arsenal by adopting modernization measures of its own."<sup>21</sup>

Comparative figures worked out by Lutz and based on total NATO and Warsaw Pact strength add up to a ratio of 1,622:1,637 systems. Now this reflects approximate parity without a doubt. In this calculation, the total number of weapons systems is taken into account as well as their differing qualitative criteria. Justifiably, the calculations are also based on the need to include U.S. and NATO systems frequently excluded by the bourgeois camp such as American equipped with Poseidon missiles operating in the Atlantic and the

Mediterranean under SACEUR; carrier-based aircraft in the same area, and all NATO with a range of more than 1,500 kilometers. Also included are the nuclear weapons systems of France and Great Britain.

As long as the aforementioned U.S. Forward Based systems which are capable of reaching the Soviet Union and against which the land-based Soviet missile arsenal constitutes a reply are excluded, there is no comparing and no negotiating about medium-range weapons systems. This is confirmed --unintentionally, it may be assumed-- in a report by the chairman of the U.S. Joint Chiefs of Staff, which states: "The U.S. contribution to LRTNF consists of forward-based F-111 and A-6 aircraft as well as a significant number of Poseidon RV's, all assigned to SACEUR."<sup>22</sup>

There are also major differences with regard to their strategic mission between the Soviet SS-20's and the proposed Pershing II's and the Cruise missiles which should not be left out of consideration. The SS-20's are a replacement with no increase in range for the SS-4's and SS-5's which had already been in use for more than 10 years.

The deputy director of the London International Institute for Strategic Studies, G. Trevorton, confirmed this fact which has been pointed out by the Soviet Union on a number of occasions, stating the SS-20 poses "no qualitatively new threat" as compared to the obsolete delivery systems.<sup>23</sup> And Stockholm-based SIPRI in its latest yearbook also states that "if the existing missiles are replaced piecemeal by SS-20's, this does not introduce a qualitatively new threat." As for designating the Pershing II and Cruise missiles as "modernization," SIPRI calls that an "understatement" pointing to "qualitatively new capabilities" NATO could gain at the expense of the Warsaw Pact organization.

The number of medium-range missiles has not been increased in the European part of the USSR during the past 10 years, nor has the number of corresponding aircraft. Furthermore, the Soviet Union has stationed no such weapons on the territory of its allies. As a matter of fact, the number of medium-range missile launch pads and their nuclear warhead strength were decreased somewhat as was the number of medium-range bombers. The ministerial meeting of the NATO nuclear planning group in The Hague in November 1979 itself confirmed the fact that "the total number of Soviet missile launching sites targeted on NATO territory in Europe has been reduced somewhat in recent years."<sup>24</sup>

In a speech before the Brookings Institute in February 1980, defense secretary Harold Brown also acknowledged the fact that the USSR did not increase the number of its medium-range weapons and warheads in the seventies, but in fact decreased them.<sup>25</sup>



Thus, the NATO decision to develop, produce and station new medium-range nuclear systems in Western Europe is not the result of military superiority or a threat on the part of the Warsaw Pact states but based on the desire to attain military superiority and to abrogate the principle of equal security as the basis of mutual relations and negotiations.

### A Deadly Scheme

The entire scheme of the United States and of NATO to gain superiority with the help of new weapons systems is highly dangerous and a threat to peace:

1. The danger of a general war involving missiles and nuclear weapons is not reduced but heightened; above all because there is an erroneous assumption of being able to wage and to win a limited nuclear war. It is a view that completely disregards reality that a localized nuclear war could be waged. Any nuclear attack would escalate into a direct confrontation in short order and involve retaliatory strikes. The 30th Pugwash conference of noted world scientists in late August 1980 rightly called for steps to counter this madness. M Kaplan of the United States, the secretary general of the international Pugwash movement said in conclusion: "Perhaps the worst thing that has happened is the increasing promotion and public acceptance of the idea that limited nuclear wars could be fought without the risk of nuclear escalation, that nuclear wars could be survived and won."<sup>26</sup>

2. The danger of nuclear conflict is heightened as a result of attempts by the United States and NATO to develop a first strike capability which is to say --in connection with directive 59-- above all in Europe. The deployment of new medium-range systems in Western Europe turns these countries into nuclear hostages of the United States to all intents and purposes. Whereas the United States are aiming for a considerable military advantage vis-a-vis the Soviet Union by adding these missile systems, the West European countries are called upon to bear the "nuclear risk." This has not only led to considerable uneasiness among the population but also to suspicion and anxiety among realistically thinking West European politicians.

Contrary to the U.S. position, official and unofficial views are being voiced in some of the smaller member states of NATO which oppose the new U.S. strategy aimed at lowering the nuclear threshold. This is true for example of the two largest political parties in the Netherlands<sup>27</sup> and equally of the retired FRG general Baudissin who now heads the Hamburg Institute for Peace Research and Security Policy and who warns of the dangerous consequences this U.S. nuclear war strategy would have.<sup>28</sup> There is a growing realization that the danger of military conflict in Europe and

for its population cannot be "escalated out of existence" by introducing new weapons systems but that military detente and arms reduction are needed.

3. The arms race is being stepped up. There are new rounds being started which forces the socialist states to take the necessary steps to safeguard their military security in view of the acute threat. History proves that the socialist states have the capability to match any new weapons technology introduced by NATO with corresponding new weapons of their own which are necessary for their defense. But it is a new round in the arms race with its very grave consequences that the socialist states would like to prevent.

It should be noted that a new round in the arms race does not in any sense signify a mere numerical enlargement of "somewhat modernized" weapons systems. Based on this erroneous thesis, some bourgeois journalists have come to the "reassuring" conclusion that military balance is bound to restore itself in the end. This would lead to a restoration of the status quo guaranteeing world peace once more. If one group of states were to add more arms to its side of the scales, the "international scales" would balance out again as soon as the other group of states adds an equal number of "weights" to its side.

The metaphor of the scales is antiquated and obviously deficient because of the mechanistic symbolism involved, even if it does have a certain descriptive value. At any rate, if it is used, one must not overlook a most important fact. Any scales can be weighed down up to a point. But if it is overloaded, the whole system collapses.

Any sober and objective assessment of the military-strategic situation in the world and above all in Europe must lay stress on the conclusion that armaments both in terms of quantity and quality are now dangerously close to the upper limit of the loading capacity of the military balance system. There is a fundamental threat to strategic stability in any new round of the arms race, particularly in the development, production and deployment of weapons of mass destruction and delivery systems with materially new capabilities. More and more realistically thinking politicians are coming to realize this. The long-time head of ACDA, Paul Warnke, for example, wrote: "The Russians are capable of warding off any threat to strategic equality just as we are able to forestall any attempt of theirs to attain superiority. The result of any stepped-up competition will be a situation comparable to the present but characterized by a higher level of potential destruction and more unsettled political conditions...Today, the best alternative which offers a guarantee against nuclear war is the



conclusion of agreements on strategic arms control conducive to reducing tensions and to paving the way to comprehensive and more effective disarmament in the future."<sup>29</sup>

4. An arms race which aims at the attainment of military superiority undermines the principle of equality of states in the system of international relations. The quest for hegemony is fostered; a policy of strength and the attempt to apply military pressure and to resort to blackmail to turn negotiations into dictates gains favor. There would doubtless be an increase in tensions and in suspicion between groups of states not only in international relations including those in the economic field. Clearly, this would also impede the work of all existing and projected bodies dealing with arms control and disarmament and impair the basis for negotiation.

5. Finally, there is a need to point to the many economic and social consequences of such a process for all states whether directly or indirectly concerned. Although these consequences are not discussed here, there is no doubt but that they would be extremely grave.

#### Arms Limitation and Disarmament Based on Equal Security

Despite all presently existing tensions and difficulties in world affairs, the socialist states believe that the process of detente and the results attained thus far must continue to have priority in international relations. They are in favor of constructive steps such as to counter further hardening of the international and the European situation.

The socialist states aspire neither to military superiority nor to a shift of the military balance which has historically evolved in their favor. This applies both to the strategic balance between the USSR and the United States and between the Warsaw Pact and NATO in the European area. It was already in 1977 that Leonid Brezhnev called the allegations according to which the Soviet Union was aspiring to nuclear superiority in order to carry out a first strike "nonsensical and totally unfounded," adding that "our efforts are in fact aimed at preventing both a first strike and a second strike and, for that matter, nuclear war itself."<sup>30</sup>

In May 1980, the Warsaw Pact countries renewed their pledge of never developing a nuclear first strike capability and of never arrogating to themselves any control over "spheres of influence" or international transport routes.<sup>31</sup> Their whole policy aims at eliminating the military factor. But as long as significant progress in the direction of general and total disarmament cannot be reached, the military factor continues to be important. That

is why the preservation of the military balance is one of the fundamentals of peaceful coexistence between states with differing social systems. But it is not only a military factor but also a pre-condition for practical measures aimed at arms limitation and disarmament.

The central goal of the foreign and security policy of the Warsaw Pact countries continues to be a reduction in the level of military confrontation on the basis of reciprocal reduction of forces and armaments. Their policy continues to be based on the principle of equal security, respect for the legitimate security interests of other states and readiness to enter negotiations about all types of weapons. The only condition they attach to all their proposals for arms limitation and disarmament is unequivocal and effective respect for the principle of equal security for both sides.

This position is also being supported by leading bourgeois experts. G. Kristiakowski, for example, a former scientific adviser of the President of the United States and a long-time member of the top staff at the Los Alamos atomic center, wrote: "To reach agreement (on arms limitation-ed) we must unequivocally grant the Soviet Union equal status and take her legitimate security needs into consideration."<sup>32</sup>

The Warsaw Pact countries consider the preservation of approximate parity of forces an important stabilizing factor in world affairs. For this reason, their proposals have been and still are aimed at maintaining approximate military balance at a level to be gradually lowered with a view to reaching effective and mutually acceptable reductions in arms expenditures.

The Warsaw Pact countries are making numerous efforts to thwart any attempt aimed at disturbing the military-strategic balance and achieving one-sided military superiority. Now that the United States and other NATO members have set their sights on a new, stepped-up arms race, the Warsaw Pact countries have no other choice to adopt measures to increase their defense preparedness in the sense of preserving approximate military parity. These are measures that pose no threat to the security of any other country. But the socialist states cannot accept any disturbance of the military-strategic balance because this would endanger their security and threaten world peace.

The communique of the meeting of the political consultative committee of the Warsaw Pact countries in May of this year spells out the main points of this coordinated socialist foreign policy which is in the interest of their own security needs and those of the world as a whole:

First: Agreement on the principle that no state or group of states in Europe may after a certain date increase the numerical strength of its armed forces in the area designated by the Helsinki Final Act. This is also how the most recent initiative of the socialist participants at the Vienna negotiations is to be understood. The deadlock at these negotiations could thus be broken and first results could be achieved, if the proposal were accepted to withdraw 20,000 military personnel of the USSR and 13,000 of the United States during the first stage of troop reductions as well as to impose a collective "freeze" on troop levels during the "intervals" between the reduction stages.

Second: Strict adherence to all terms of the Helsinki Final Act, above all to the basic principles all participants have pledged to uphold-- such as the renunciation of force or the threat to use force; the inviolability of national frontiers; the peaceful settlement of disputes; the non-interference in internal affairs; the fulfillment in good faith of obligations under international law.

Third: Intensive bilateral and multilateral exchanges of opinion in order to structure the Madrid conference in such a way that practical steps aimed at comprehensive implementation of the Final Act can be agreed upon.

Fourth: Stepped-up preparations for a conference on military detente and disarmament in Europe with the aim of reaching practical decisions in Madrid on the agenda, date, location and mode of operation of the conference and of concentrating the work during the initial phase on confidence-building measures.

Fifth: Ratification of the SALT II treaty and speedy conclusion of negotiations going on at present and/or broken off such as the talks on banning nuclear tests, radiological and chemical weapons and on the non-use of nuclear weapons against non-nuclear nations.

Sixth: Immediate start of constructive negotiations on such issues as a world treaty on the non-application of force, a ban on the production of nuclear weapons and a ban on the development of new types and systems of weapons of mass destruction.

Seventh: Discussions on the limitation and reduction of military presence and military activities in the Atlantic, in the Indian Ocean, the Pacific, the Mediterranean and in the Persian Gulf.<sup>23</sup>

The primary object of all these efforts and proposals is to make further progress in reducing the danger of nuclear war. In addition to the ratification of SALT II, this calls for reopening the way to negotiations on medium-range missiles. As is well known, these



negotiations were blocked as a result of the refusal of the Soviet offer of 6 October 1979 and the NATO resolution on medium-range missiles of December 1979.

### New Soviet Proposals

The newest initiative of the Soviet leadership calling for immediate consultations on the best approaches to solve the medium-range nuclear missile issue which was submitted both to the chancellor of the FRG on the occasion of his visit to Moscow in June 1980 and to the U.S. leadership is therefore of extraordinary, fundamental and topical importance. What are its main points ?

Its purpose is to start discussions and preliminary negotiations as soon as possible on medium-range nuclear weapons in Europe--even prior to ratification of the SALT II treaty which, as is known, has been blocked by the destructive position taken by the United States.

The point is to conduct these talks "within the organic context" of the issue of the so-called forward based American nuclear weapons, including, as mentioned previously, the F-111 and Phantom combat aircraft stationed in Great Britain as well as American nuclear submarines assigned to NATO, particularly those on patrol in the Mediterranean.

Arms limitation agreements reached in these talks, if any, could be taken up which is to say realized following ratification of SALT II.

Such talks could commence without any pre-conditions whatsoever.

Erich Honecker, secretary-general of the SED central committee, has called these proposals "a means of breaking the impasse in the disarmament dialogue caused by the NATO missile resolution in Brussels."<sup>34</sup> Evidence that the proposals are considered to be meaningful is reflected in positive statements on some aspects of them in various European NATO countries. Thus, FRG chancellor Helmut Schmidt said he thought the inclusion of FBS in such consultations to be "quite logical," adding that he could "appreciate the Soviet position with respect to SALT II."<sup>35</sup> SPD disarmament expert Pawelczyk made a point of stressing that the Soviet proposal offers a way of gaining time and "one possibility of preventing an arms race in Europe in the medium-range nuclear systems field."<sup>36</sup>

Addressing letters to Western heads of state and government in August, the secretary-general of the CPSU central committee, Leonid Brezhnev, made new efforts to get the talks started. In a joint press conference, the U.S. and FRG foreign ministers reacted --at least indirectly-- by announcing their readiness to enter preliminary talks soon.<sup>37</sup>



But in this case, too, the idea is to take concrete steps without delay. And, one cannot help noting that a kind of rejection movement against the USSR proposals is already beginning to form in some of the NATO countries. There are demands, for example, not to include FBS in the talks, but only medium-range missiles. But even NATO military experts do not deny --as we have already shown-- that the stationing of Soviet medium-range missiles in European Russia was meant as and still constitutes a reply to the so-called FBS which in effect fulfill the function of medium-range nuclear missiles. In the final analysis, the issue is the entire range of weapons which fulfill the same or a similar function-- unless one is making an attempt arbitrarily to alter the present approximate military balance in one's own favor.

Pessimistic estimates are also being given according to which it would be extremely difficult to conduct such talks and negotiations because of the subject matter involved. It may even take years to agree on a mutually acceptable definition of the matter at issue, it is said.

But: the subject matter treated by SALT I and SALT II also was extremely varied, particularly with respect to the comparability of types of weapons, their location and range and their destructive capabilities, etc. Nonetheless, results were achieved conforming to well-perceived bilateral interests. The decisive aspect is mutual good will which in the end contributes greatly to mutual trust. The peoples impatiently expect and yearn for negotiations. The apparent and totally unfounded hesitancy in the guise of the alleged need to give careful "study" to the USSR proposal gives rise to suspicions that the object is to gain time in order to pursue goals and arms measures of one's own and to create accomplished facts of a most dangerous nature.

Today's world is one of heightened tensions. The situation is complicated. It demands the highest degree of political readiness to to work toward and to conduct a dialogue about issues in dispute and at the same time to avoid anything that might contribute to aggravating the situation. A shift toward military detente in the eighties is possible, if the negotiations are based on the existing approximate strategic balance and the principle of equal security for all sides.

#### FOOTNOTES

1. NEUES DEUTSCHLAND, East Berlin, 9 Sep 1980
2. NEUES DEUTSCHLAND, East Berlin, 24 Nov 1978
3. SUEDEDEUTSCHE ZEITUNG, Munich, 8 Mar 1977

4. ICA-BULLETIN, Washington/Bonn, 20 Sep 1979
5. NEW YORK TIMES, New York, 14 Dec 1979
6. FRANKFURTER RUNDSCHAU, Frankfurt/Main, 8 Sep 1979
7. R. Kennedy, "Essays on Measuring the Strategic Balance" in "U.S.A. and the Strategic Balance," Munich, 1980, p 23
8. A.M. Cox, "The Dynamics of Detente," New York 1976, p 130
9. NEUE ZEIT, Moscow, No 4, 1979
10. Cf J. Stelsow, "Strategic Parity or Strategic Superiority ?" in DEUTSCHE AUSSENPOLITIK, Berlin, No 8, 1980, p 95ff
11. Ibid
12. J.R. Schlesinger, "The Theater Nuclear Force Posture in Europe: A Report to the United States Congress in Compliance with Public Law 93-365," Washington, U.S. Department of Defense, 1 Apr 1975, p 2
13. Quoted by S.D. Pair, "TNF and the Strategic Balance" in "U.S.A. and the Strategic Balance," loc cit, p 38
14. J.R. Schlesinger, loc cit, p 15
15. NEUES DEUTSCHLAND, East Berlin, 1 Jul 1980
16. FRANKFURTER ALLGEMEINE, Frankfurt/Main 6 Sep 1980, p 10
17. FRANKFURTER RUNDSCHAU, Frankfurt/Main 13 Aug 1980
18. Fiscal Year 1980 Arms Control Impact Statement, 96th Congress, 1st Sec, Mar 1979, Washington, DC, p 135
19. See e.g. P. Schlotter, S. Tiedke, "Is There an Alternative to Rearmament in Europe ?" Frankfurt/Main, 1980
20. H. Hoffmann, R. Steinruecke, "Armament and Disarmament in the Euro-Nuclear Area," Washington/Bonn 1979, p 35
21. D.S. Lutz, "The Military Strength Ratio in the Field of Euro-Nuclear Weapons Systems," IPSH-FORSCHUNGSBERICHTE, No 12, Hamburg, Oct 1979, pp 31-32
22. Group of Authors, "The Controlled Chaos: The Crisis of Disarmament," Frankfurt/Main, 1980

23. Cf G. Treverton, "Nuclear Weapons and the Gray Area" in FOREIGN AFFAIRS, New York, Summer 1979, p 1080
24. EUROPA-ARCHIV, Bonn, No 2, 1980, p D 29
25. FRANKFURTER RUNDSCHAU, Frankfurt/Main, 31 Jul 1980
26. FRANKFURTER RUNDSCHAU, Frankfurt/Main, 5 Sep 1980
27. FRANKFURTER RUNDSCHAU, Frankfurt/Main, 12 Aug 1980
28. FRANKFURTER RUNDSCHAU, Frankfurt/Main, 15 Aug 1980
29. P. Warnke, M. Krepton, "The Awesome Fact Behind the SALT-Debate" in "Across the Board," New York, No 3, 1979, p 18 ff
30. NEUE ZEIT, Moscow, No 26, 1980, p 11
31. Declaration by Member States of Warsaw Pact in NEUES DEUTSCHLAND, East Berlin, 16 May 1980
32. DEFENSE MONITOR, Washington, Mar 1978, p 7
33. NEUES DEUTSCHLAND, East Berlin, 16 May 1980
34. NEUES DEUTSCHLAND, East Berlin, 26 Aug 1980
35. DER SPIEGEL, Hamburg, 7 Jul 1980
36. FRANKFURTER RUNDSCHAU, Frankfurt/Main, 21 Jul 1980
37. INTERNATIONAL HERALD TRIBUNE, Paris, 28 Aug 1980

9478

CSO: 2300

WEST GERMAN ANALYSIS OF GDR COMBINE SYSTEM DEVELOPMENT (II)

Cologne DEUTSCHLAND ARCHIV in German Vol 13 No 10, Oct 80 signed to press 26 Sep 80  
pp 1046-1062

[Part II of 'Analyses and Reports' feature article by Kurt Erdmann and Manfred Helzer: "The New Combine Decree in the GDR — Possibilities and Limits of the Productivity Stimuli of the Newly-Formed Combines." A translation of Part I of this article is published in JPRS 76865, 24 Nov 80, No 2065 of this series, pp 31-52. Translations of six below-cited articles from the following two East Berlin journals are published under quoted headings in JPRS issues of this series as indicated: Three items from EINHEIT: Footnote 1 — Fritz Haberland, Wolfgang Salecker, "Combine Managers' Tasks, Improved Production Methods Discussed," 76104, 24 Jul 80, No 2026, pp 34-76; footnote 45 — Horst Martens, "Petrochemical Combine Expansion, Rationalization Discussed," 76459, 19 Sep 80, No 2043, pp 43-45; and footnote 62 — Gerd Friedrich, Klaus Kroemke, "Combine System's Development, Future Tasks Analyzed," 75132, 14 Feb 80, No 1980, pp 15-26. Three items from WIRTSCHAFTS-WISSENSCHAFT: Footnote 16 — Rudolf Gerisch, Willy Hofmann, "Effective Combine Management Seen Vital to Economic Success," 73083, 26 Mar 79, No 1872, pp 13-39; footnote 31 — Ingo Wolf, "Combine Responsibilities for Construction Deadlines Outlined," 74274, 6 Dec 79, No 1961, pp 33-48; and footnote 82 — Gerd Friedrich, "Combine, Enterprise Management and Planning Reviewed," 76335, 29 Aug 80, No 2038, pp 7-32. Also available is a translation of an earlier DEUTSCHLAND ARCHIV article by Kurt Erdmann, cited in footnote 85, published under the heading, "Problems Cited in Industrial Design Development," in JPRS 74271, 27 Sep 79, No 1937 of this series, pp 24-36]

[Text] Part I of this analysis (published in issue No 9, 1980, pp 929-942) initially discussed the new combine decree, both from the standpoint of earlier legal provisions regarding enterprise organization as well as follow-up regulations issued in the interim. This was supplemented by a description of the benefits which the economic leadership anticipates from the combines in remedying at least some of the existing functional weaknesses and reducing the problems that have arisen as a result of foreign economic strains. Next came an analysis of changes in the economic management system that came about once the VVB's [associations of state enterprises] were abolished and integrative enterprise mergers (combines) were established. Another important point was the limited expansion of the authority of combine managements to make decisions.



Part II of this study concentrates on industrial management problems affecting internal combine organization. Solution of these problems will ultimately determine whether the — so urgently needed — general improvements in productivity can or cannot be achieved with the combines.

#### IV. Priorities and Problems of Managerial Intensification Efforts in the Combine

##### 1. Industrial Management Objectives

The industrial management sector is the main starting point for the active mobilization of productivity in the combine reorganization process. The GDR economic leadership's expectations resulting from a revision of the internal organizational structure as well as from crucial process-related changes are directed toward the potential ability of the new combines to make a qualitative leap, as it were, to a higher level of productivity by coordinating specific actions aimed at the intensive mobilization of all industrial activities. Among the <sup>substitutions</sup> previous development trends in the growth of production, in the development of productivity, can no longer be realized with the same means" as before; rather, "qualitative changes..." are "necessary."<sup>1</sup> Priorities in the call for a critical review and rationalization of the combines' own potential are increased efficiency and the managerial result as measured by success (plan fulfillment, profits, cost minimization) — quite apart from the axiomatic fulfillment and overfulfillment of national economic plan quotas.

One of the GDR's leading economists, Koziolok, therefore characterized the industrial importance of the combines in these words in 1979: "Most of the national economy's intensification processes intersect in combine and enterprise reproduction and are ultimately realized there."<sup>2</sup>

The possibilities for internal enterprise rationalization and the problems involved have consequently been discussed intensively at a number of economic and political conferences in recent years, but seldom has there been any clear result.

The special importance ascribed by the economic leadership to establishing a new "internal containment" of the entire industrial process in the combine<sup>3</sup> can be seen in the fact that this demand was included in Art 1 of the new combine decree,<sup>4</sup> although toned down somewhat ("largely contained reproduction process"). This cautious wording is doubtless occasioned by the negative practical experiences in realizing the "self-contained system of economic levers" as the core of the reform phase of the New Economic System in 1963. Probably, however, the ideas at that time on achieving "internal containment" were behind the present-day planning. The effort to arrive at a contained economic system was not successful then. Today the hope is for at least a largely "consistent combine system." This in turn may be equated with a general revaluation of industrial management problems.

One of the most important points on the combine reorganization agenda is the best possible adaptation of combine structural organization to the specific conditions that exist in each case. Guenter Mittag stressed this at the combine conference in 1978: "So one should do what is necessary in the area of organization, but I should like to warn expressly against treating formation of the new combines in just one way, as a problem of structure and organization."<sup>5</sup>

A number of measures, procedures and demands can be listed among the efforts to arrive at an improved combination of factors and a more efficient structuring of industrial spheres of activity in the combine. Only a few main markers — with no claim to completeness — are featured here, set against the backdrop of an extremely broad catalog of industrial management tasks found in the "joint directive" of the party and government on drafting the 1981 National Economic Plan,<sup>6</sup> and also borrowing from the four essential industrial production factors found in Western business administration theory:

- (1) Dispositive factor (management and organization as essential intensification factors, for example);
- (2) Capital or working capital factor (including the "effectiveness of capital assets"<sup>8</sup>);
- (3) Labor factor (including the use of industrial labor resources and especially the "saving of human labor"<sup>9</sup>);
- (4) Materials factor (including the "efficient use of energy, raw materials and material"<sup>10</sup>).

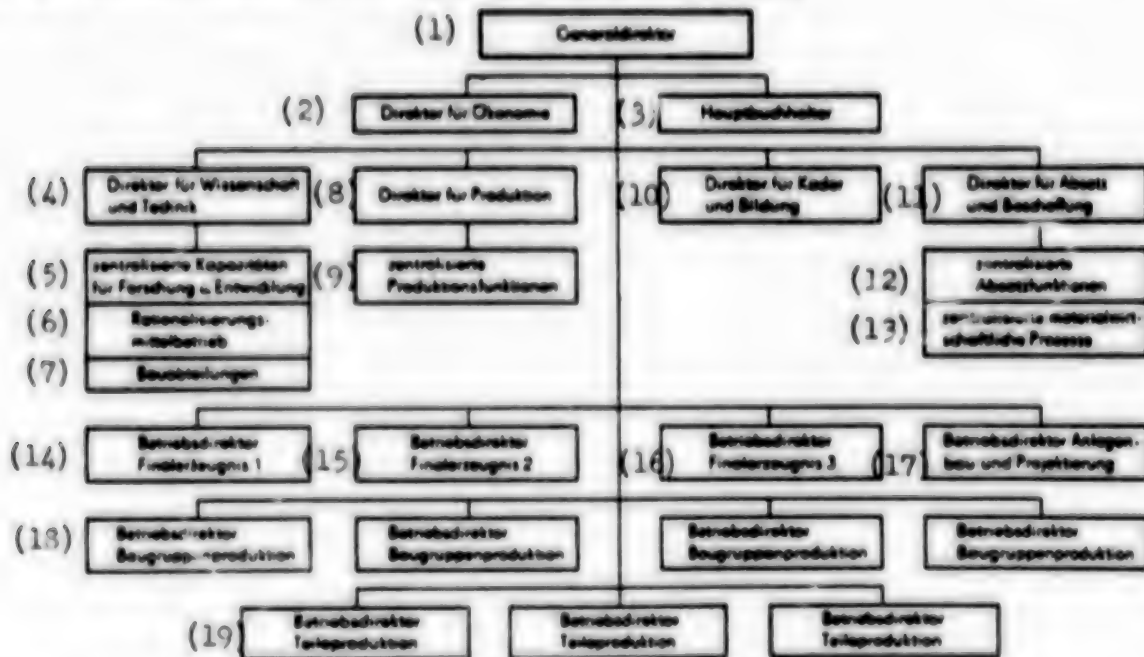
Another key area in the internal sector is the question of the extent of relative autonomy on the part of the combine enterprises, thus also of the principle of economic accounting — as an essential "method of systematic management...", in order to carry out in the enterprises the most effective means of plan fulfillment while making the most efficient use of resources."<sup>11</sup> With a few exceptions, a discussion of further industrial management details in this context must be omitted.

## 2. Management and Internal Combine Organization

Special importance is ascribed to the formative force of the dispositive factor in the phase of combine reorganizations in particular. Four basic types of combines are differentiated in the GDR literature:<sup>12</sup>

- (1) Management by a central combine management of a combine having only one enterprise (Leuna Works, for example);
- (2) Management by way of an independent management apparatus of a combine having several enterprises (VEB Carl Zeiss Jena Combine, for example);
- (3) Management by way of a main enterprise of a combine having several enterprises; this management guides the entire combine simultaneously (for example, the Mansfeld Combine, the Bitterfeld Chemical Combine, the IFA Passenger Vehicle Combine);
- (4) Management by way of control enterprises for various product groups for combines having several enterprises (for example, the Microelectronics Combine, the Dako Combine, the Radio and Television Combine).

Fig. 1. Grundstruktur der Leitung eines Kombinats mit eigener Kombinateinführung



(20) Quelle: Autorenkollektiv, Grundlagen der sozialistischen Wirtschaftsführung, Berlin (Ost) 1979, S. 353

11 Werner Achmann, Eberhard Sandmann, Egon Thomae, Leiten - Planen - Entscheiden, Handbuch zur Aufgaben der Leiter bei der Betriebsplanung, Berlin (Ost) 1978, S. 31.  
12 Autorenkollektiv (Lfg. Gerd Friedrich und Helmut Kozulak).

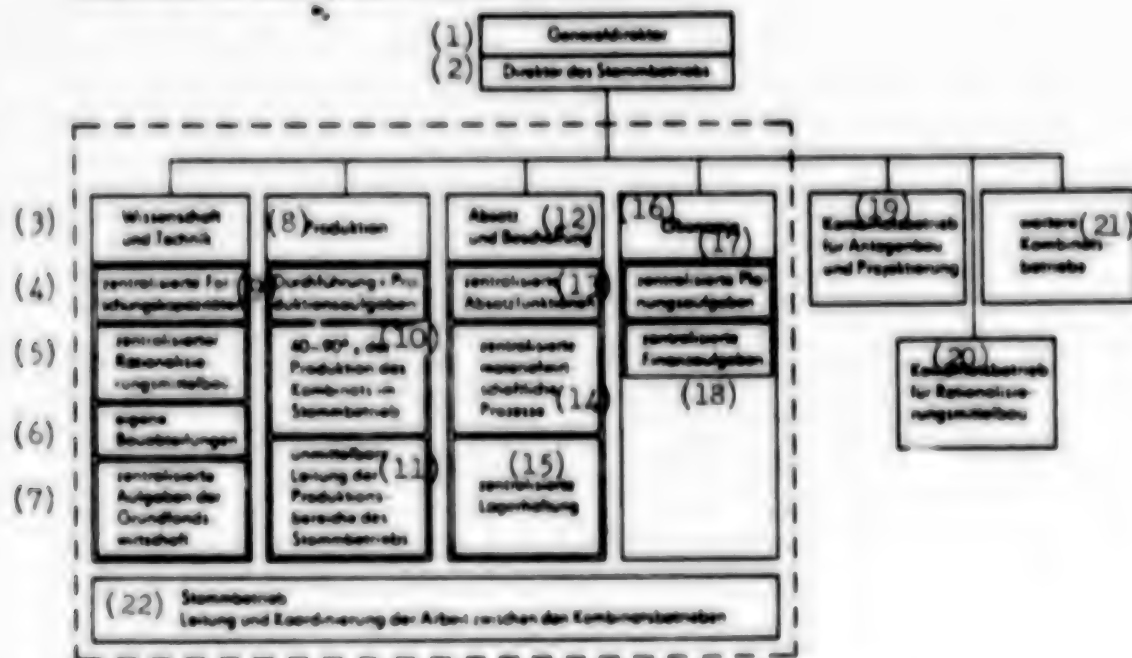
Grundlagen der sozialistischen Wirtschaftsführung, Berlin (Ost) 1979, S. 344 ff. Siehe auch: R. Giesch, S. Kohl, A. Seifert, W. Hoffmann, K. Bittner, D. Urban, -Kombinate - Leitung, Organisation, Leistungsantrag-, in: Die Wirtschaft 12/1978, S. 7 ff.

Fig. 1. Basic Management Structure of a Combine with Its Own Combine Management

Key:

- |  |  |
|--|--|
| 1. General Director                            | 16. Enterprise director, finished product 3  |
| 2. Director for Economy                        | 17. Enterprise director, Installation Construction and Project-Planning  |
| 3. Main Bookkeeper                             | 18. Enterprise director, Components Production   |
| 4. Director for Science and Technology         | 19. Enterprise director, Parts Production  |
| 5. Centralized R & D capacities                | 20. Source: Authors' Collective, "Basic Questions of Socialist Economic Management," (East) Berlin, 1979, p 353. |
| 6. Rationalization means enterprise            |  |
| 7. Construction departments                    |  |
| 8. Director for Production                     |  |
| 9. Centralized production functions            |  |
| 10. Director for Personnel and Training        |  |
| 11. Director for Marketing and Procurement     |  |
| 12. Centralized marketing functions            |  |
| 13. Centralized materials management processes |  |
| 14. Enterprise director, finished product 1    |  |
| 15. Enterprise director, finished product 2    |  |

Fig. 2.  
Grundstruktur der Leitung eines Kombinats mit Stammbetrieb



(23) Quelle: Autorenkollektiv, Grundlagen der sozialistischen Wirtschaftsführung, Berlin (DDR) 1979, S. 548

Fig. 2. Basic Management Structure of a Combine with a Main Enterprise

Key:

1. General Director
2. Director of the Main Enterprise
3. Science and Technology
4. Centralized research capacities
5. Centralized construction of rationalization means
6. Own construction departments
7. Centralized capitalization tasks
8. Production
9. Implementation of production tasks
10. 40-90 percent of combine production in main enterprise
11. Direct management of the main enterprise's production sectors
12. Marketing and Procurement
13. Centralized marketing functions
14. Centralized materials management processes
15. Centralized warehousing
16. Economy
17. Centralized planning responsibilities
18. Centralized finance responsibilities
19. Combine Enterprise for Installation Construction and Project-Planning

[Key continued on following page]



20. Combine Enterprise for Rationalization Means Construction
21. Other combine enterprises
22. Main Enterprise  
Management and coordination of work among the combine enterprises
23. Source: Authors' Collective, "Basic Questions of Socialist Economic Management," (East) Berlin, 1979, p 349.

Fig. 3.  
Grundstruktur der Leitung eines Kombinats über Leitbetriebe

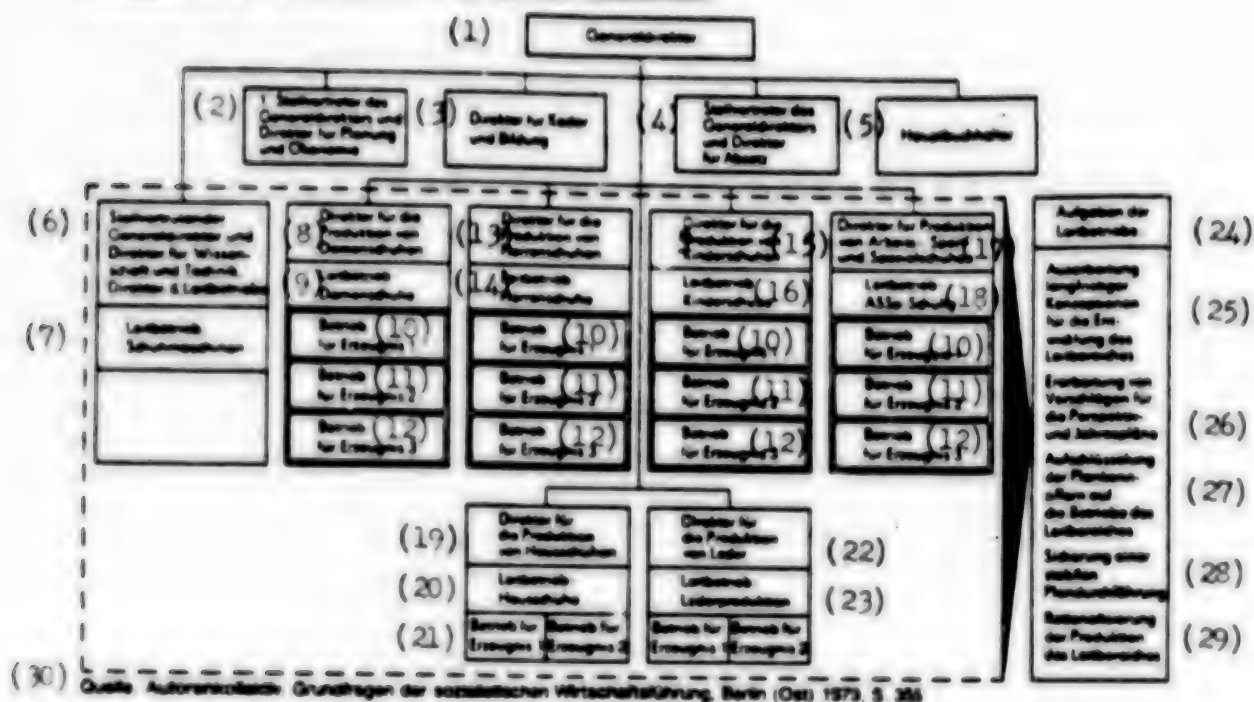


Fig. 3. Basic Management Structure of a Combine Using Control Enterprises

Key:

1. General Director
2. First Deputy to General Director and Director for Planning and Economy
3. Director for Personnel and Training
4. Deputy General Director and Director for Marketing
5. Main Bookkeeper
6. Deputy General Director and Director for Science and Technology, Director of Control Enterprise
7. Control enterprise: shoemaking machinery
8. Production Director for Women's Shoes
9. Control enterprise: women's shoes
10. Enterprise for product 1
11. Enterprise for product 2
12. Enterprise for product 3
13. Production Director for Men's Shoes
14. Control enterprise: men's shoes
15. Production Director for Children's Shoes
16. Control enterprise: children's shoes
17. Production Director for Work, Sports and Specialty Shoes [ASSp]
18. Control enterprise: ASSp shoes
19. Production Director for Slippers
20. Control enterprise: slippers
21. Enterprise for product 1  
Enterprise for product 2
22. Production Director for Leather

[Key continued on following page]

23. Control enterprise: leather production
24. Responsibilities of control enterprises:
25. Drafting of long-range plans for development of the control sector
26. Development of proposals for long-range and annual plans
27. Allocation of plan index figures to enterprises of the control sector
28. Assurance of stable plan implementation
29. Rationalization of control sector's production
30. Source: Authors' Collective, "Basic Questions of Socialist Economic Management, (East) Berlin, 1979, p 355.

In cases 1 and 2 it is critical to note that the tighter internal structure created with centralized combine management also involves greater dangers and risks: lines of planning and decisionmaking that are too long; reaction times that are too lengthy in the case of coordination processes; thus the possibility of decisions that are too far removed from practical application. To be sure, the top level of the combine could be organized efficiently so that it would function more as a controlling and supervisory organ — along the lines of a holding company — and would have only minimal opportunities to influence enterprise operations. But this would be totally at variance with the intention of using the combine leaders to achieve state goals.

In the case of combine formation with management by a main enterprise (case 3) — for us this is approximately comparable to a takeover of competitors by the market leader — set against the advantage of a centralization of a centralization of production processes and thus a lower-cost mass production (in the case of turning over small-lot production to small-scale enterprises and other specialization and centralization effects) are three not insignificant disadvantages: It is difficult to select the most suitable main enterprise and the general director from among the enterprises to be merged; the main enterprise selected does not have to be the best economically and could thus become a false standard for the others as a result of its leading position; finally, in order to increase its efficiency the main enterprise could divert from others to itself parts of the program that are beneficial, or it could assign unfavorable parts to other enterprises.

Particularly in the case of combine formation with control sectors (case 4) — which has been instituted above all in consumer-oriented sectors — the trend toward large-scale enterprise forms for product groups could produce distinct disadvantages for consumers despite centralized planning: Long-established, finely tuned structures could be destroyed, products dropped, variety further reduced and the varied marketing channels of former single enterprises sacrificed. Moreover, multiple chains of command and accompanying conflicts of interest by enterprises in the combine system are possible with this combine form in particular.

Internal organization can form only the outer framework in the establishment of more productive economic units. Needed above all is a better quality of management work itself in order to do justice to the many and varied responsibilities — conserving raw materials and setting a course for new procedures, for example.<sup>13</sup> The necessity<sup>14</sup> here is to view problems less from a situation-related and more from a process-related standpoint, to perceive to a greater extent elements that can be changed and influenced and not to overestimate outside influences. In addition, a GDR study reveals, following a survey of managerial personnel, that there are still many different things that must be done to improve management, especially because of the "lack of organization" that is still frequently in evidence and because there are still "too many short-notice directives" that have to be issued.<sup>15</sup> At lower levels of management there is an inhibitive effect in that decisionmaking powers are quite limited and only inadequate participation in the preparation of decisions is allowed.

It is basically within the purview of the combine's "management organization" to develop a tight and less bureaucratic management system with shorter lines of decisionmaking — one of the main arguments for the reorganization. Moreover, high priority is being accorded the so-called "expertise principle,"<sup>16</sup> thus a qualified



team of leaders for the combine. Greater emphasis than in previous regulations is found in Art 3, par 5, of the new combine decree with the demand that management is "to be organized comprehensibly" and in "the most efficient manner."<sup>17</sup> For instance, the "expertise principle" is grounded in Art 24, par 3, with the term (management) "close to production."<sup>18</sup>

A general objective here, and one that must be assessed positively, is that management would be drawing closer to production, production will possibly be structured better and fewer instances of intersectoral coordination will be necessary on the level of the economy as a whole. While three of the aforementioned organization models of a combine are included in the combine decree (Art 26), this new decree makes no provision for the former regulation covering combines in the form of the large-scale enterprise with legally dependent enterprise branches (case 1); the VEB decree dating from 1973 had made specific provision for such enterprises (Art 24, par 1).<sup>19</sup> It remains to be seen whether and to what extent combines of this systemic type dating from 1968 will undergo a possible conversion in the future. Even considering the few problems cited here, it becomes apparent that the completed reorganizations have caused numerous internal combine management as well as planning problems that are new and in part quite complicated, problems that cannot be solved in a day. It should therefore be kept in mind that the internal management build-up in the combines is still in full swing and that such experimenting is still being done in this very area.

Good "manageability of the overall organism"<sup>20</sup> depends just as much upon questions of allocating management responsibilities and delegating duties (for instance, with staffs, the position of state commissioners, functions of SED party organizations and other "social management organs"<sup>21</sup>) as it does upon the solution of pressing problems involving the industrial information system<sup>22</sup> and the use of EIP. But also important is the intelligent application of both mathematical and cybernetic models<sup>23</sup> and methods by combine management. The "collective advisory organs" mentioned in the combine decree (Art 5, par 4) are intentionally not described further by order of the "Legal Department, Council of Ministers' Secretariat." Since economic practice had produced "many different forms" of consultation, it was left to the "statutory stipulations" for the combines to determine the "composition and tasks" of such bodies.<sup>24</sup>

### 3. More Efficient Use of Capital in the Combine

Neither the changes in the organizational management buildup nor the legal codification of tasks, rights and obligations on the part of the combine management and the combine enterprises are being done for their own sake. Rather, their purpose is to make it possible to better realize the catalog of goals that have been set. They are designed to create an institutional framework, so to speak, for the desired radical internal restructuring of the potentials that are united within the combine. This is the crucial issue. In other words, they want to increase potential capabilities by combining these potentials more effectively — a prodigious task within a combine.

For example, a flexible installations park is a prerequisite for the manufacture of new products that meet demand. However, in the single enterprise in the GDR, installations are almost totally inflexible for the short term and are only slightly convertible in the medium term — by way of investments. By contrast, substantial

changes and accompanying obvious productivity advances can be achieved within the combine by restructuring aggregates, reassigning production to different units and remodeling entire enterprises or parts of enterprises.<sup>25</sup> This is because regular rationalization has been neglected for decades in the GDR, old installations are still being used too long at high maintenance costs and, moreover, because there is a shortage of modern accessory equipment. The consequently so urgently necessary intensification advances can certainly be achieved easier and more rapidly in the larger enterprise system than in single enterprises, for the combine has at its disposal a far more comprehensive reservoir of different capacities, thus making possible a higher "degree of self-supply." In other words, with only limited allocations of new assets, the greatest importance is being placed on improvisation with existing installations.<sup>26</sup>

Considering these circumstances, one can also understand why the in-house construction of rationalization means by enterprises has been accorded a special role.<sup>27</sup> This role is that of constructing single pieces of equipment to solve problems in specific enterprises, developing procedures and promoting the use of interchangeable equipment. The in-house construction departments are designed to permit construction work to proceed while production is going on and in general to establish better links between construction work and outfitting processes.<sup>28</sup> Existing capacities for the in-house manufacture of rationalization means are merged in the combine and placed under the direct authority of the general director so that swift and effective rationalization programs may be assured. Quite often it is a matter of manufacturing single items which machine construction cannot be bothered with.<sup>29</sup> This means that it is much less a matter of highly efficient solutions than of somehow surmounting difficulties at all on short notice. Since, however, there has been mounting criticism of the high cost of this kind of in-house manufacture, efforts have recently been aimed at finding better criteria for evaluating these services (for instance, the benefits, the degree of acceleration for innovations, the release of manpower) and also at applying these criteria.<sup>30</sup> But this means that not every in-house construction program will meet with general approval from now on.

The intention is to use the stepped-up modernization of existing buildings instead of new ones to reduce both the expenditure of construction materials and construction's share of investments.<sup>31</sup> Investments are to be made more efficient and construction times substantially reduced by means of better planning and project-planning for new projects, development of a substantiated priority and sequence order for projects as well as changes in the productivity evaluation for capital goods.<sup>32</sup> It is anticipated in this regard that the general directors will come forth with a strong impetus for better investment decisions because of their broad overview of the branches and their proximity to production — this expectation is being held out even though state intervention in the investment process has increased.<sup>33</sup>

#### 4. Intensification of 'Industrial Labor Resources'

Except for the "involvement of the general director,"<sup>34</sup> any progress in the "ensemble" of interlocking and mutually conditional intensification and production factors depends chiefly upon the efficient use of employees ("use of industrial labor resources") and their willingness to produce. With an employment figure of more than 70 percent of those of working age (including trainees) in the GDR, any

further expansion will also be severely restricted for the period of the 1981-1985 Five-Year Plan. The possibilities of a thoroughgoing rationalization in the personnel sector<sup>35</sup> are also a decisive criterion in the organizational changes, since without a centrally determined "self-production" by the labor force offices in the combine, new investments or those for expansion are frequently ruled out for lack of manpower. Numbering among the hoped-for "combine results" relating to the labor factor are the "release of manpower for other tasks and a saving of jobs,"<sup>36</sup> improvement in unsatisfactory work discipline<sup>37</sup> in a number of enterprises, a reduction in the apparently very sizable downtimes<sup>38</sup> including the accompanying unplanned costs,<sup>39</sup> efforts to provide skilled-worker trainees and a "curbing of fluctuation," which "has experienced a further negative" trend<sup>40</sup> compared to 1978. The release of employees and job-saving measures are therefore expressly a central concern of the combine decree (Art 21, par 1) and are considered by the "Joint Directive" to be a "central issue in assuring major production growth."<sup>41</sup>

Apart from the by no means new conflict of interest between plan targets and job reductions in the enterprise, the general restructuring situation that exists for the most part in the combine facilitates a simultaneous revision of the table of organization and the relinquishment of those positions "which are never actually to be occupied by workers"<sup>42</sup> but have thus far repeatedly been pushed by the enterprise manager as an optimum demand vis-a-vis his central office. Released workers are expected to result in particular from a greater centralization of combine functions (in administration as well as in production) and especially from certain auxiliary and secondary processes. To be sure, economic practice shows that just one of the substantial obstacles to a transfer of employees is the great physical distance that often exists between a combine's enterprises and parts of enterprises; added to this are housing problems.

The so-called Schwedt Initiative — "Few produce more"<sup>44</sup> is an official symbol for comprehensive rationalization in the personnel sector according to this formula: "Reduction in the number of existing jobs with a simultaneous increase in the level of quantitative and qualitative labor requirements."<sup>43</sup> As the result of expansion investments that are scheduled to double capital assets during the 1978-1981 period, the main enterprise of the Schwedt Petrochemical Combine, with 8,500 employees, is obliged to produce the 2,400 workers<sup>45</sup> needed for this (a good 25 percent of the workforce) from within its own plant by means of a "genuine reduction of slots"<sup>46</sup>; this is virtually tantamount to a cut in the wage fund imposed from above.

The great number of potential practical problems in transferring to a new workplace in the GDR will only be noted here. Even the hope of reducing fluctuation<sup>47</sup> in the GDR — the costs of which run into the billions according to GDR figures<sup>48</sup> — should not be aimed too high considering such a radical, centralized regime of thrift. As it is, the GDR had decreed a general cost freeze for the managerial and administrative sector with its new guideline on financing dating from August 1979.<sup>49</sup>

Moreover, it remains to be mentioned that problems resulted for the Labor Code (AGB) because "the purview of Art 17, par 1, of the AGB" fully covered "only enterprises, but not the combine as a basic economic unit"<sup>50</sup> in its various forms. The AGB is used here expressly as an "analogy." In addition to the aforementioned by no means always positive aspects, the development of a more productive "regular workforce,"<sup>51</sup> the definitely visibly improved working conditions and a transfer and retraining of manpower within specific limits are only a few of the better manpower placement



possibilities that must be assessed positively from the standpoint of industrial management. But simply because of the size of a combine, many a factor that has heretofore placed obstacles in the way of increasing labor productivity — such as a system-related hoarding of manpower in the individual enterprises, for example — could be reduced to some extent, but by no means totally eliminated. An expansion of the opportunities for social service by the combine workforce (use of combine capacities for housing construction, vacation homes, daycare facilities and so forth) could provide an additional incentive for the workforce.

## 5. Conservation of Energy and Raw Materials

The GDR literature is sharply imploring the enterprises and combines to follow "paths to increased labor productivity that conserve capital and materials."<sup>52</sup> When one considers, for example, that more than 70 percent of industry's production costs go to pay the cost of materials, and more than half of all manpower in the producing sectors is used to produce and transport energy, raw materials and materials,<sup>53</sup> then one recognizes the importance being ascribed to the material-conservation intensification factor alone. To be sure, so far the leading role of the gross "industrial goods production" figure has had a negative effect when plan accounts are being balanced, because if there has been an increase instead of a decrease in the expenditure of materials, the enterprise or combine has even been "rewarded" in the form of "better plan fulfillment." Since March 1980, however, an important change has occurred: Now the performances of combines and enterprises are no longer measured solely by "goods production" but also by the new index figures for "net production" and "material costs per M 100 of goods production."<sup>54</sup> This is undoubtedly an important step in the right direction with regard to conserving energy and raw materials, whose increasing costs world-wide are placing great strains on the GDR economy.<sup>55</sup>

By way of an improved evaluation of productivity and a mobilization of scientific-technical progress, the economic leadership is expecting from the combines changes in production processes which save materials and make intensive use of raw materials. Says Guenter Mittag: "It is fundamentally important here to refine available raw materials to a higher degree and with the aid of modern technologies bring them to the highest possible stages of processing, thus further developing and improving the GDR's production structure."<sup>56</sup>

Future growth is to be achieved insofar as possible with constant levels of, or only slight increases in, energy and materials consumption, which is why the economic leadership also is not afraid to impose a quota system for energy, heating oil and vehicle fuels,<sup>57</sup> draw down stockpiles and order increased efforts to make multiple use of secondary raw materials.<sup>58</sup> Even private households are being penalized for substantially exceeding fixed heating norms through price increases for the excessive consumption of energy, gas and heat.<sup>59</sup>

The 1981-1985 Five-Year Plan calls for the construction industry<sup>60</sup> to employ designs that are economical in the use of materials in order to reduce specific materials consumption by 3.0 percent annually for rolled steel and lumber and by 2.5 percent annually for cement. Moreover, plans have been made to cut building costs by 15 percent by 1985; this is to be accomplished by switching from former construction methods to the practice of doing more remodeling of existing structures, thus saving materials. Better insulation of new buildings as well as the older,



renovated structures and technological improvements in the equipment that goes into buildings are supposed to cut energy consumption by 30 percent. It is hoped that the manufacturers of building materials will achieve at least three-quarters of their planned production growth without using additional energy.

These things cannot be done without substantial and active participation by the combines and enterprises. In addition to major changes in production processes, protracted technological innovations are also required. With the technical means and limited potential for innovation existing in the combines, neither can be achieved speedily or without great difficulty.

## V. On the Conflict of Interest Between Combine and Combine Enterprise

### 1. Powers of the Combine Enterprise in Theory and Practice

At first glance, the status of the combine enterprise in the new combine decree appears to be not only unchanged but even strengthened from a formal standpoint. In contrast to the earlier phrase "responsible for itself," the combine enterprise is now described in Art 6, par 1, of the combine decree as an "economically and legally autonomous unit," although the narrow limits are made clear by this proviso in the text of the law: "within the framework of its integration in the reproduction and management process of the combine."<sup>61</sup> But considering both a debate over the status of combine enterprises — one that has at times been quite heated in recent years — and the guarded interpretation found especially in commercial law commentaries on the combine decree, one can see several unsolved problems regarding an issue that is so central to the new regulations.

The combine enterprise receives its assignments from the combine and is accountable to it.<sup>62</sup> It is tied into the industrial management cycle as determined by combine management and planning. In accordance with the principle of individual management, the enterprise director is responsible for accomplishing the tasks assigned. The scope of his relative autonomy is revealed by the very manner in which capital (working capital) is handled: The fact "that the portion of state property to be administered by the combine takes in the capital held by the combine enterprises as well as the combine's centralized capital"<sup>63</sup> is described as an "important advance in the legal representation of structured state property."<sup>64</sup> This means, however, that essential funds are centralized in the combine.<sup>65</sup> Enterprise financial transactions having to do with the state budget are also conducted through the combine. The question of liability is interesting in this regard. According to previously existing regulations, in contrast to the VVE the combine was also liable for the debts of its enterprises. But the new combine decree provides in Art 3, par 5, for a combine's liability for its debts as well as in Art 6, par 2,<sup>66</sup> expressly for a corresponding liability on the part of combine enterprises. The hitherto-existing ruling on a backup liability by the combine was dropped, it is said, because it had acquired "no practical relevance."<sup>67</sup>

The very extensive powers of a combine general director (the restructuring of production and the transference of funds within the combine, for instance) do not change the fact that the combine enterprise that operates according to the principle of economic accounting is basically subject to the principle of self-financing within the framework of its plan commitments. It has been remarked that the obvious discrepancy, only alluded to here, between formal autonomy as stated in the combine

decree and the actually existing limitations on enterprises within the combine system is not a contradiction; "rather, it presents an exact reflection of the present status of the socialization process."<sup>68</sup>

There are doubtless important reasons when the legal department of the GDR Council of Ministers expressly interprets the new regulations in such a way that the combine enterprise is indeed "integrated" but not "subordinated."<sup>69</sup> In the debate prior to publication of the combine decree, the emphasis in views on the status of combine enterprises had shifted from a "nonautonomous" position (frequently propounded by practicing economists from combines) to that of retaining a "relatively more independent" status, though with the following proviso: Since "the key areas...in effective management of the combine reproduction process are consistently to be handled centrally," changes in the "objective features and criteria" of "in-house responsibility" on the part of the combine enterprises should not conflict with these requirements.<sup>70</sup> Rather, in-house responsibility should acquire "new substance,"<sup>71</sup> for it is "no static entity"<sup>72</sup> since "main functions" of the enterprises pass to the combine.<sup>73</sup>

Horst Trauer, one of the GDR's experts on problems of organization, had already described this issue in 1973 as "one of the most complicated problems in the continued socialization of production."<sup>74</sup> One of the main points in the discussion at that time was whether the combine or the combine enterprises represented the lowest level and were thus the basic economic units in the GDR.<sup>75</sup> The USSR settled this question once and for all by converting to "associations" after 1973; there the "associations" — roughly comparable to combines — constitute the lowest level, not the enterprises.<sup>76</sup> A study conducted at the Bruno Leuschner Advanced School for Economics in 1978 was critical of the fact that "increased effectiveness will be hindered in the long run if, in contrast to the situation in the Soviet Union, the enterprise continues to be regarded and supported as the sole basic unit of social production."<sup>77</sup>

The scope of "in-house responsibility" by combines and enterprises and the principle of economic accounting as a method of socialist economic management are mutually exclusive.<sup>78</sup> The latter principle determines the scope and level of the industrial management mechanism. With regard to the aforementioned debate, this is significant in that in the Soviet Union only the "associations" — thus the economic units that equate to the combine — operate according to economic accounting principles. The combine at present has basically a three-phase system for the economic accounting mechanism:

- (1) Full application at the combine level;
- (2) Application to the combine system's enterprises limited by overriding combine responsibilities;
- (3) Application of "economic accounting within the enterprise"<sup>79</sup> to nonautonomous parts of enterprises and production units.

There were a number of reasons for retaining a relative autonomy and thus also the principle of economic accounting for the combine enterprises:

(1) The unwillingness of enterprises and workforce to give up existing rights certainly played an important role: "The new situation must first gradually be 'sounded out,' so to speak. Problems of interest are also involved, because the measures to be initiated may presumably or actually be in conflict with the distinct group interests of the combine enterprises."<sup>80</sup>

(2) Preservation of "autonomy" and the basic retention of the economic accounting principle lend themselves to the function of a control and buffer against the considerably expanded, real abundance of powers enjoyed by the general director of a combine. On the other hand, the principle of economic accounting serves to make the industrial management mechanism and productivity evaluation of the respective enterprises work better. To be sure, it is the GDR view that "an economically correct setting of prices"<sup>81</sup> is considered a precondition for the "effectiveness of the entire mechanism." Moreover, retention of the economic accounting principle makes it possible to avoid motivational weaknesses that are already apparent in the Soviet model, since here the units that are not legally autonomous are losing "the feeling of their responsibility for the success of production."<sup>82</sup>

(3) It is a prerequisite for the continued expansion of enterprises, thus of cooperation with "local organs," with particular reference to a frequently substantial physical distance between the combine enterprises.

Basically, the compromise solution contained in the combine decree can be seen in the definition of the combine in Art 1 as a "basic economic unit," which in turn points up the prominent position of the combine and a special importance in relation to its enterprises, one which tends to correspond to the Soviet interpretation of the association. Thus it is generally true in economic practice that the "combine management determines the degree of autonomy enjoyed by enterprises within the combine."<sup>83</sup>

The problems outlined here are sufficient to illustrate the divergence of interests between the combine and its enterprises and the obstacles to productivity stimuli that doubtless result.

## 2. Selected Intensification Tasks for Industrial Management in the Combine

Any analysis of even the most prominent tasks in setting up a "largely contained reproduction process" in the combine (according to the provisions of the new combine decree) would far exceed the boundaries of this study. This is already a fairly long-range process for the majority of combines. Tasks and the problematics involved in reshaping industrial management capacities in the combine, as well as the question of possible prospects for success, cannot be elucidated systematically here; only selected examples can be offered — though supplemented by important changes in method that are becoming observable in the 1981-1985 Five-Year Plan as regards the industrial management sector.

The economic leadership is anticipating advantages for the combine from a generally high degree of centralization of industrial functions. Although this may lead to benefits for combine enterprises individually, as a rule it will not. This is because major changes in or the virtual destruction of the hitherto-existing industrial structure of combine enterprises will cause disadvantages to predominate, at least in the short run for a period of conversion and adjustment. A total

relocation of industrial manufacturing programs that enhance the plan and the profit situation can also lead to a longer-term disadvantage, which can scarcely be offset by potential financial compensation from the combine leadership.

The emphasis in GDR economic life is on economic productivity aspects of the centralization and specialization of industrial management functions in the combine, as well as the "standardization of important processes";<sup>84</sup> in addition to economic motives, hidden power interests on the part of top combine officials cannot be ruled out here.

One of the main objectives is the establishment of centralized R & D facilities for the planning and development of products — including the expansion of design centers<sup>85</sup> — for specific product lines from the "idea through to the successful product,"<sup>86</sup> particularly for export. Behind this is the endeavor to gain a better grasp of the entire process than before, from "demand and market research" through "technological realization"<sup>87</sup> all the way to sales; this is because in the past, for reasons of plan fulfillment, the "for the most part poorly developed market research" in the enterprises and combines had "often been dropped or reorganized" as an in-house activity.<sup>88</sup> Among such "combine results" of industrial management are: the dismantling of "engineering offices" and their reorganization into "Technological Rationalization Centers" (TZR) as relatively self-sufficient combine facilities;<sup>89</sup> the concentration<sup>90</sup> of an "often inadequately" organized "materials procurement, storage and supply operation";<sup>91</sup> a forced development of the previously unsatisfactory expansion of centralized manufacturing operations;<sup>92</sup> or a specialization of the "product structure according to effectiveness criteria."<sup>93</sup> To be mentioned equally in this context are the concentration and resulting improvement in the mechanization of auxiliary processes — through the creation of special maintenance enterprises,<sup>94</sup> for example — or rationalization by centralizing administrative affairs. In the latter case in particular, there is considerable reason to doubt that any advantages will be forthcoming.

Basically, two essential aspects play a role here: One concerns the increased productivity from concentration and rationalization stimuli as a result of reduced costs; the other concerns the elimination through the restructuring process of causes and obstacles to industrial management functions that have hitherto been exercised only to an inadequate degree. Quite apart from existing pricing and valuation problems,<sup>95</sup> this is particularly true of the sector for accounting and productivity evaluation. In addition to other new plan index figures<sup>96</sup> (net production, for example), introduction of the "end product" index figure that dates from 1 January 1979, and is considered a beneficial "statement of result for the combines,"<sup>97</sup> is also playing an important part in the economic debate. In particular, the special index figure for "yield on the end product" is designed to establish a better incentive and productivity criterion in economic units.<sup>98</sup> Warnings have already been issued, however, against "excessive expectations"<sup>99</sup> with regard to the validity of the "end product" index figure.<sup>100</sup> On the other hand, it is precisely the internal performance picture of a combine that is a very essential factor in more rapid advances in productivity.

Another weak spot is "independent planning" in the industrial sector. It is here that, despite appropriate regulations, there has been either inadequate or no organization in many enterprises of an in-house short- as well as longer-term "conceptual preparation of plans,"<sup>101</sup> no drafting of "development options,"



"intensification plans" or long-range production programs; there are a number of reasons for this ("too expensive, no time, no employees who are capable, information value too low"<sup>102</sup>). For the most part an "autonomous sector" for this function has been lacking in the enterprise.<sup>103</sup> Corresponding new provisions<sup>104</sup> in the 1981-1985 Five-Year Plan will doubtless be easier to enforce by way of centralized combine departments.

This study will forgo a discussion of the problems involved in the assignment of foreign trade enterprises to the combines in accordance with the combine decree; regardless of complex provisions,<sup>105</sup> a closer operational interdependence that is developing with the combine can only be advantageous.

Given a flexible practical application, the developmental directions of combine efforts at concentration that have only been touched upon here will certainly be able to unleash a certain productivity thrust for the short term if a number of existing weak spots are eliminated. Nevertheless, the conflict of interest that seems to be increasing rather than abating between combine headquarters and their enterprises is an obstacle that cannot be underestimated, especially since the economic leadership's most recent moves are even heightening the trend toward centralization, and thus toward a possible bureaucratization.

The first of these measures appears to be a new version of the principle of "structurally-determining planning."<sup>106</sup> This is an Ulbricht type of concept, a priority program of planning, incorporation and implementation of crucial economic innovation processes<sup>107</sup> by way of the new planning ordinance for 1981 through 1985. No matter how necessary this may be to the more rapid implementation of technical progress (in microelectronics, for example), the consequences that go along with it have already proven to be a negative factor once before — one of these consequences is an "improvement of the index figure system"<sup>108</sup> (probably through expansion). In the revision of the Contract Law that is still going on,<sup>109</sup> these peculiarities will play a role not only in the combine's external relations but also within the framework of the "internal enterprise cooperation" (production relations among the combine enterprises) that has been sharply expanded through combine reorganization.<sup>110</sup> This would indicate a general increase in the codification of commercial law covering the internal combine sphere.

Consequently, it is no mere coincidence that even in the GDR there are those who are warning against overestimating the effects of concentration,<sup>111</sup> and considering the "monopoly status"<sup>112</sup> now being accorded the combines, these warnings are definitely justified.

## VI. Interim Balance Regarding the Combine Reorganization

The sought-after ideal of a combine as a totally "new economic organism"<sup>113</sup> is aimed chiefly at a new quality of industrial management in addition to improvements in the national economic situation. A conclusion drawn from a vast number of studies and essays in recent years is that the present reality of reorganization differs from this ideal by virtue of the mere fact of extremely different, even contradictory, statements regarding the best organizational structure for the combines. The move to another dimension, virtually a command for the majority of the enterprises, had led to obvious confusion by the fall of 1979 — for the lack of clear, detailed guidelines. Though the new combine decree does provide guidelines for a new type

of combine, judging at any rate by the existing system of strict centralized management and planning, these guidelines will have to be supplemented by more detailed regulations. It is possible that internal implementing regulations for specific branches — like those in the pricing sector — could play a greater role than before in achieving a more flexible adjustment of the organizational structure to everyday economic conditions. Consequently, a swift and smooth solution for the complex relationships that have to be reordered can hardly be expected for the short term.

A balance sheet of positive and negative structural effects for the economy and for industrial management would therefore be premature. An essential prerequisite is the patience to get through a lengthy adjustment period, for sufficient patience to allow reform processes to mature has never been one of the GDR's strengths. With this one reservation, a number of positive effects appear basically possible; they could be the result of activities generated by an improved — but just as risky — style of industrial leadership. This applies, however, only insofar as all other conditions satisfy the requirement of a new quality of "internal containment" in industrial operations and actually allow enough leeway for the activities demanded of combine managers with respect to the "how" of production. This latter condition concerns powers at the ministerial level in particular. If those very principles of control described by the SED Central Committee's Central Institute for Socialist Economic Management should be fully implemented as far down as the combine enterprises, the unquestionably meaningful beginning of a release from encrusted structures could be blocked. Quite apart from this, important conflicts of interest still remain unresolved or are merely being shifted from one point to another; other problems of detail also constitute risk factors that can scarcely be comprehended at this time. Added to this is the fact that in a phase of extreme economic strain and mastery of pressing economic problems, it would probably be virtually impossible to complete an organizational reform of this magnitude without major initial difficulties and frictional problems. And last but not least, an especially aggravating factor continues to be the GDR economic system's already more than latent tendency toward bureaucratization and unwieldiness. Large Western corporations "have been endeavoring for years to reorganize their giant apparatuses — which could not be made more transparent despite outsized staff departments — into comprehensible units that are more or less partially autonomous."<sup>114</sup> By contrast, GDR enterprises frequently suffer from an insufficient internal clarity even in units that are comprehensible. Though the information systems may have been improved, they nonetheless provide only inadequate aids to the preparation of decisions, largely because of very considerable price distortions and unresolved pricing problems.<sup>115</sup> It is for this very reason that the combine management is clearly limited (in its efforts to arrive at more efficient forms of large-scale enterprises).

In addition, the radical internal redirection being sought for the potential that is bound up in the combine requires general directors who — despite meager material incentives for themselves — will develop a variety of initiatives in the face of all bureaucratic obstacles, but who will nevertheless pursue the state's objectives. They must be able to use innovations — radical but inexpensive ones — to extract substantially greater results mainly from existing capacities without any large new investments, with the lowest possible manpower potential and with only minimal increases in the use of energy and raw materials. Thus, the most serious

problem for combine reform would seem to be that of finding sufficient numbers of this kind of ingenious "supermanager" who will toe the party line at the same time.

#### FOOTNOTES

The footnotes are numbered separately in each part of the article.

1. Fritz Haberland, Wolfgang Salecker, "The Economic Comparison — Lever for Production Growth," *EINHEIT*, Vol 6, 1980, p 594.
2. Helmut Kosiulek, "Reproduction and National Income, Problems and Connections," (East) Berlin, 1979, p 166.
3. Guenter Mittag, "The Principal Objective Is Being Resolutely Accomplished," SED Central Committee Exchange of Experiences Seminar on the Development of Existing Combines and the Establishment of New Ones as Presently Essential Steps Toward Improving Management and Planning," 24 and 25 August 1978, (East) Berlin, 1978, p 42. ("The crucial factor also in forming the combines is always to proceed from the standpoint of the combine as a whole and of establishing the internal containment of its reproduction process. This point of departure is important to the correct solution of the practical problems that will occur.")
4. "Decree on the State Combines, Combine Enterprises and State Enterprises, 8 November 1979," *GESETZBLATT*, Part I, 1979, No 38, p 355.
5. Guenter Mittag, "The Principal Objective Is Being Resolutely Accomplished," loc cit, (footnote 3), pp 41,42.
6. *NEUES DEUTSCHLAND*, 8 July 1980, pp 3,4.
7. Cf Guenter Woche, "Introduction to General Business Administration Theory," 11th revised and expanded edition, Munich, 1973, p 61. Michael-Burkhard Pior—"Socialist Goods Production and Industrial Management," Berlin, 1980,/kowsky pp 110 and 117 — Piorkowsky concludes in a comprehensive analysis of industrial management theory in the GDR that "the system of productive factors in socialist industrial management theory does not differ from the traditional system in the market economy's general business administration theory; socialist industrial management theory is similarly "predominantly corporate management theory."
8. Karl-Heinz Graupner, Walter Krzyzanowski, "Central Conference on 'Main Directions in the Organic Link Between the Scientific-Technical Revolution and the Advantages of Socialism,'" *WIRTSCHAFTSWISSENSCHAFT*, Vol 2, 1980, p 206.
9. Ibid.
10. Ibid.
11. Werner Ilchmann, Eberhard Sandmann, Egon Thomasch, "Manage — Plan — Decide. Handbook on Managers' Tasks in Enterprise Planning," (East) Berlin, 1978, p 31.

12. Authors' Collective (directed by Gerd Friedrich and Helmut Koziolok), "Basic Questions of Socialist Economic Management," (East) Berlin, 1979, p 344 ff. See also: R. Gerisch, S. Kohl, A. Seifert, W. Hoffmann, K. Bittner, D. Urban: "Combines — Management, Organization, Production Growth," DIE WIRTSCHAFT, Vol 12, 1978, p 7 ff.
13. For the period between 1981 and 1985, at least one-fourth of the savings in energy and raw materials planned by science and technology are to be gained through the further use of microelectronics. Cf Ina Ladig, "Challenge of Microelectronics," DIE WIRTSCHAFT, Vol 6, 1980, p 5.
14. Cf "Industrial Management Conference on Management Work in Socialist Industrial Enterprises and Combines," (conference report), SOZIALISTISCHE ARBEITSWISSENSCHAFT, No 3, 1980, p 233.
15. Cf Klaus Ladensack, "Tasks and Means for the Improvement of Management Work," SOZIALISTISCHE ARBEITSWISSENSCHAFT, No 3, 1980, pp 164, 165.
16. Cf Rudolf Gerisch, Willy Hofmann, "Tasks and Problems of Combine Development Aimed at Increasing Economic Effectiveness," WIRTSCHAFTSWISSENSCHAFT, Vol 2, 1979, pp 129, 130.
17. Combine Decree, loc cit, (footnote 4), p 356.
18. Ibid, p 362.
19. GESETZBLATT, Part I, 1973, No 15, p 135.
20. Hans-Dieter Ebbecke, Walter Otte, "Development Trends in Completing the Management Buildup in Enterprises and Combines," WIRTSCHAFTSWISSENSCHAFT, Vol 12, 1979, p 1479.
21. Ibid, pp 1478-1485.
22. Cf Klaus Krakat, "Computer Production and Computer Use in the GDR," FS-ANALYSEN No 3, 1977, pp 49-53.
23. Cf the remarks by H. G. Lauenroth, K. Boehm, "Cybernetics in the Industrial Organization," Berlin, 1979; Authors' Collective, "Mathematics and Electronic Data Processing as Related to Intensification in the Socialist Enterprise and Combine," WIRTSCHAFTSWISSENSCHAFT, Vol 12, 1979, p 1423 ff; a new four-volume "Dictionary of Cybernetics" is scheduled for publication this year.
24. Eckhard Schmidt, "On Management of the Combine and Combine Enterprises," WIRTSCHAFTSWISSENSCHAFT, Vol 1, 1980, p 11.
25. Cf "Comprehensive Remodeling in the Enterprise," DIE WIRTSCHAFT, Vol 3, 1979, p 14.
26. Mansfeld Combine General Director Karl-Heinz Jentsch had this to say, for example: "Rationalization of our combine's enterprises...has demonstrated that



it is often possible at existing modern installations to increase production by between 10 and 20 percent using the same number of workers or even fewer." Cf NEUES DEUTSCHLAND, 1 August 1979, p 3.

27. Cf Georg Pohler, "In-House Construction of Rationalization Means Produces Faster Pace," PRESSE-INFORMATION DER DDR, 15 May 1979, p 3. See also: "More Rationalization Means from Own Enterprise," NEUES DEUTSCHLAND, 7 August 1979, p 1. Also Walter Mielsch, "In-House Construction of Rationalization Means Promotes Increased Productivity," PRESSE-INFORMATION DER DDR, 16 October 1979, pp 2,3. Cf also G. Kilisch, "Possible Options for the Streamlining and Structural Integration of Rationalization Means in the Metalworking Industry Sector," DIE TECHNIK, No 11, 1979, p 391 ff; cf a summary by Kurt Erdmann: "Acute Problems of GDR Enterprises in the Investment Sector" in: Gernot Gutmann, Manfred Melzer, Kurt Erdmann, "Investments and Rationalization," Fourth Symposium of the Research Agency, lectures on 24 November 1978, FS-ANALYSEN, No 6, 1978, pp 70-77.
28. Cf Dietrich Deutscher, "In-House Construction Departments Promote Rationalization," DIE WIRTSCHAFT, Vol 10, 1978, p 3.
29. Cf television press conference, GDR Television II, 6 November 1978 (RIAS Monitoring Service).
30. Cf K. H. Wilhelm, "In-House Rationalization Means at Any Price?," DIE WIRTSCHAFT, Vol 6, 1980, p 16.
31. Cf Ingo Wolf, "Basic Tasks of Industrial Construction Combines and Enterprises in the Qualitative Improvement of the Material and Technical Base of Socialism in the GDR," WIRTSCHAFTSWISSENSCHAFT, Vol 10, 1979, p 1191 ff.
32. Cf "Joint Resolution by the SED Central Committee Politburo and the Council of Ministers on Increasing the Effectiveness of Investments Designed To Further Strengthen the GDR's Economic Efficiency," NEUES DEUTSCHLAND, 10 and 11 November 1979, p 3.
33. Cf "Decree on Increasing Investments," GESETZBLATT, Part I, 1980, No 13, p 107 ff.
34. Krzyzanowski, loc cit, (footnote 8), p 216.
35. A total of 30,000 new jobs were created in the GDR economy between 1976 and 1978, but only 7,700 (approximately one-fourth) were the result of efficiency measures; H.J. Beyer, W. Packebusch, "Thoughts on Job Reduction," DIE WIRTSCHAFT, Vol 2, 1980, p 15.
36. Klaus Frank, Peter Glotz, "A Large-Scale Metallurgical Enterprise Wages a Successful Battle Against Fluctuation," ARBEIT UND ARBEITSRECHT, Vol 6, 1980, p 249.
37. The introduction of time clocks planned at that time to improve work discipline at the famous Ruhla Watchworks met with criticism from the workforce. DAS VOLK, Erfurt Bezirk's newspaper, therefore studied the question of whether

time clocks are "unprincipled" in a socialist society. Cf IWE-TAGESDIENST, No 102, 1980, pp 2,3.

38. "Significant Productivity Reserves Are To Be Gained by Reducing Downtimes," "Joint Directive of the SED Central Committee Politburo, the GDR Council of Ministers and the FDGB Federal Executive Board on Drafting the 1981 National Economic Plan and the Thorough Discussion of Its Goals and Tasks with the Working People," NEUES DEUTSCHLAND, 8 July 1980, pp 3,4.
39. The average costs of a lost working day for a production worker in GDR machine construction rose from M 320 (in industrial goods production) in 1972 to M 410 in 1979, a total of 28 percent.
40. "Joint Directive," loc cit, (footnote 38).
41. Afternoon Magazine, "People's Chamber Committee for Labor and Social Policy Meets. Committee Discusses Problems with Fluctuation," Radio GDR I, 24 January 1980.
42. H.J. Beyer, W. Packebusch, loc cit, (footnote 35).
43. "Joint Directive," loc cit, (footnote 38).
44. Joachim Kund, "Starting Points and Means for the More Efficient Use of Labor Resources," ARBEIT UND ARBEITSRECHT, Vol 6, 1980, p 245.
45. Cf Horst Martens, "Rationalization in the Interest of the Working People," LINIENHEIT, Vol 7/8, 1980, p 729.
46. H.J. Beyer, W. Packebusch, loc cit, (footnote 35): the reaction by trade union and plant council to analogous demands in a Western company is not up for discussion here.
47. Katharina Belve offers extensive remarks on fluctuation: "On the Background of Fluctuation in the GDR," DEUTSCHLAND ARCHIV, Vol 6, 1980, pp 601-611.
48. Cf Kurt Erdmann, "Obstacles to Intensification and Improvements in Efficiency at the Halfway Mark in the GDR Five-Year Plan -- Viewpoints on Production Organization and Combine Reorganization," FS-ANALYSEN, No 4, 1978, pp 32,33.
49. The "Guideline on Financing for the State Economy," dated 21 August 1979, GESETZBLATT, Part I, No 23, p 261, Item XI, 1, expressly determines that "the level of planned costs for the preceding year" may "not be exceeded" when planning the costs of management and administration (using cost norms).
50. Cf Heinz Martin, "New Combine Decree Helps Improve Management and Planning," ARBEIT UND ARBEITSRECHT, Vol 1, 1980, p 6.
51. Cf Authors' Collective, "Manager -- Collective -- Individual. Handbook for Socialist Management Work," fourth completely revised edition, (East) Berlin, 1979, pp 136-137.

52. Cf "Basic Questions on the Theory of Effectiveness and Intensification Factors in Expanded Reproduction (Conference Report)," WIRTSCHAFTSWISSENSCHAFT, Vol 8, 1978, p 989.
53. Cf Wolfgang Heinrichs, "Principal Ways To Increase Labor Productivity To Further Raise the Public's Material and Cultural Standards of Living," WIRTSCHAFTSWISSENSCHAFT, Vol 8, 1978, p 904.
54. Cf H.J. Beyer, H. Schaidt, "Better Criteria for Evaluating Productivity," DIE WIRTSCHAFT, Vol 3, 1980, p 22.
55. To be sure, in the balancing of accounts problems still arise for the enterprises and combines to the extent that they have to show "net production" for the very first working day of the following month. At that point they know neither the figures for "materials consumption" nor the "inventory changes in uncompleted products," so they use as aids the coefficients relating to "industrial goods production." Even if the resulting errors are corrected a month later, it is virtually impossible to arrive at an error-free accounting for the entire combine. Cf G. Frischmann, H. Schubert, "Experiences and Problems with the New Index Figures," DIE WIRTSCHAFT, Vol 6, 1980, p 17.
56. Cf NEUES DEUTSCHLAND, 22/23 March 1980, p 3.
57. Cf the order on the planning, balancing and delivery as well as the accounting and control of consumption of liquid energy sources — "Supply Order for Liquid Energy Sources" — 3 June 1980, GESETZBLATT, Part I, 1980, No 19, p 180, particularly Art 4.
58. "Joint Directive," loc cit, (footnote 38).
59. Cf "Order No 2 on Supplying the Public with Electric Energy, Gas and Thermal Energy," GES ETZBLATT, Part I, 1980, No 18, p 172.
60. Cf Wolfgang Junker, "Tasks of the Construction Industry in Consistent Implementation of the Resolutions of the Ninth SED Party Congress and in Preparation for the 1981-1985 Five-Year Plan," NEUES DEUTSCHLAND, 20 June 1980, pp 3-5.
61. Combine decree, loc cit, (footnote 4), p 356.
62. Gerd Friedrich, Claus Kromke, "Combine — Foundation for Higher Quality Performance," MINERALIT, Vol 12, 1979, p 1269.
63. Heinz Buck, Liselotte Schramm, "The Position of the Combine and the Combine Enterprises," WIRTSCHAFTSRECHT, Vol 1, 1980, p 4.
64. Ibid.
65. GESETZBLATT, Part I, 1979, No 28, p 253 (for example: net profits, science and technology fund, money from the cultural and social fund or the bonus fund derived from research profits).
66. Combine decree, loc cit, (footnote 4), p 365.

67. Heinz Buck, Lieselotte Schramm, loc cit, (footnote 63), p 7.
68. Guenter Klinger, "The Combine Decree — An Important Instrument in the Continued Improvement of Management and Planning," WIRTSCHAFTSRECHT, Vol 1, 1980, p 2.
69. Heinz Buck, Lieselotte Schramm, loc cit, (footnote 63), p 7.
70. Cf Authors' Collective, "Basic Questions of Socialist Economic Management," (East) Berlin, 1979, p 353.
71. Horst Trauer, "On the Organization of Relations Between a Combine and Its Enterprises," Authors' Collective, "Current Issues in Socialist Economic Management," (East) Berlin, 1973, p 364.
72. Authors' Collective, "Basic Questions....," loc cit, (footnote 70), p 358.
73. In regard to the overall issue, see also the remarks of N.V. Klimin (Leningrad): "Relative Economic Autonomy and Peculiarities in the Functioning of the Socialist Enterprise," WISSENSCHAFTLICHE ZEITSCHRIFT DER TECHNISCHEN UNIVERSITÄT DRESDEN, Vol 3, 1976, pp 373-377.
74. Cf Horst Trauer, "On the Organization of Relations....," loc cit, (footnote 71), p 364.
75. Cf, for example, H. Feurich, "On Improving Planning and Productivity Evaluation," WIRTSCHAFTSWISSENSCHAFT, Vol 5, 1978, p 602. E. Manz, "Problems of Organizing Economic Accounting in the Combine," WISSENSCHAFTLICHE ZEITSCHRIFT, Karl Marx University, Leipzig, Vol 2, 1978, p 254.
76. Cf Horst Steeger (review of a Soviet publication), "Improving the Economic Mechanism in Developed Socialism...., Moscow, 1975 (in Russian)," WIRTSCHAFTSWISSENSCHAFT, Vol 6, 1976, p 909.
77. Walter Burian, "Thoughts on the Status and Further Development of Branch Management in the GDR System of Socialist Industrial Management," WISSENSCHAFTLICHE ZEITSCHRIFT, Bruno Leuschner Advanced School for Economics, Vol 3, 1978, p 103.
78. The principle of economic accounting, once known by the more comprehensible name of "principle of in-house profitability," is considered both as an "economic category of the socialist mode of production" and as a "method for the systematic economic administration of enterprises," or "method of socialist economic administration" with the aid of commodity/cash relationships and valuation categories (prime costs, profit, price, interest and so forth) according to the principles of profitability (drawing a balance). Cf Authors Collective, "Socialist Industrial Management," textbook, third edition, (East) Berlin, 1975, p 172 ff; and Authors' Collective, "Socialist Industrial Management for Engineers," (East) Berlin, 1978, p 1978.
79. Economic accounting within the enterprise is considered basically a limited method of socialist economic administration in nonautonomous parts of



enterprises, a method that is not based on commodity/cash relationships (no proceeds from the sale of goods). Also see Authors' Collective, "Socialist Industrial Management for Economists," technical school textbook, (East) Berlin, 1976, pp 145, 146.

80. K. Ladensack, "On Togetherness in the New Combine," DIE WIRTSCHAFT, Vol 5, 1979, p 16.
81. Monika Fischer in a review of "Authors' Collective, Economic Accounting in Industry," WIRTSCHAFTSWISSENSCHAFT, Vol 5, 1980, p 610.
82. "The Future of Industrial Associations," PRESSESCHAU OSTWIRTSCHAFT, Austrian Institute for East European and Southeast-European Studies, Vol 5, 1980, p 27 (translation from FIGYELO, Budapest, No 20, 14 May 1980, p 8). Interestingly enough, Gerd Friedrich infers and uses the same argument in a timely and detailed article on combine problems (lecture at the 30th meeting of the Scientific Council for Economic Research); he argues that the "economic stability" of the enterprises cannot "be separated from their economic and legal responsibilities." Gerd Friedrich, "Management and Planning in Combines and Enterprises — Experiences and Generalizations," WIRTSCHAFTSWISSENSCHAFT, Vol 7, 1980, p 773.
83. R. Yevstigneyev, "Experiences of the CEMA Countries in Developing Enterprise Forms," SOVIETWISSENSCHAFT. GESELLSCHAFTSWISSENSCHAFTLICHE BEITRÄGE, Vol 3, 1980, p 267.
84. "Efficient Organization of Economy, Management and Processes," DIE WIRTSCHAFT, Vol 7, 1980, p 12.
85. Cf Kurt Erdmann, "Industrial Design in the GDR," DEUTSCHLAND ARCHIV, Vol 8, 1979, p 870.
86. Cf Authors' Collective, "Development of Productivity in the Combines and Enterprises. Scientific-Technical Progress — Management Decisions — Creative Initiative," (East) Berlin, 1979, p 29.
87. Ibid.
88. Dieter Bornann, "Long-Range Scientific-Technical Development in Enterprise and Combine," Leipzig, 1977, p 63.
89. Cf Kurt Hildebrandt, Heinz Zorressen, "Socialist Rationalization and Commercial Law Aspects of Its Management in the Combine," WIRTSCHAFTSRECHT, Vol 2, 1980, pp 63, 64.
90. Cf Christine Neuhauser, "The Efficient Organization of Supply Relations Between Combine Enterprises and Suppliers Outside the Combine," WIRTSCHAFTSRECHT, Vol 2, 1980, p 67.
91. Authors' Collective, "Productivity Development in the Combines....," loc cit, (footnote 86), p 27.

92. Cf Lothar Rouscik, Klaus Oberlaender, "Centralized Manufacturing — But How?" (East) Berlin, 1976, p 28.
93. Authors' Collective, "Basic Questions...", loc cit, (footnote 70), p 366.
94. Ibid, p 337.
95. Cf remarks by Polish and GDR economists at a Dresden Technical University symposium in 1979. Joachim Kaden, "Economic Problems in the Formation and Activity of Large Economic Organizations in the People's Republic of Poland and the State Combines in the GDR," WIRTSCHAFTSWISSENSCHAFT, Vol 4, 1980, pp 432-489.
96. Cf footnote 94.
97. Joachim Kaden, loc cit, (footnote 95), p 486.
98. Cf Ilona Fuchs, Frank Mothes, Horst Neumann, "End Product: Important Criterion for Evaluating Productivity in the Combines," SOZIALISTISCHE FINANZ-WIRTSCHAFT, Vol 3, 1979, pp 12-16.
99. Joachim Kaden, loc cit, (footnote 95), p 486.
100. Cf Ursula Lange, "On Improving Productivity Evaluation in Enterprises and Combines," WIRTSCHAFTSWISSENSCHAFT, Vol 3, 1980, pp 338-340; for one thing, U. Lange criticizes an insufficiently precise use of words in the GDR literature, since the "end product" that is used frequently in context with "industrial goods production" also "can include nonindustrial products and services" (p 340); for another, she emphasizes various shortcomings of the index figure for productivity evaluation.
101. E. Polaschewsky (editor), "Planning in Industrial Enterprises and Combines," (East) Berlin, 1977, pp 54, 55.
102. Amin Holicki, Achim Schmidt, "Conceptual Preparation of the Five-Year Plan in Enterprises and Combines," (East) Berlin, 1979, p 7.
103. Ibid, p 80.
104. "New Provisions for Plan Development," DIE WIRTSCHAFT, Vol 7, 1980, p 6.
105. Cf detailed remarks by Maria Haendcke-Hoppe, "Changes in GDR Foreign Trade Organization," DEUTSCHLAND ARCHIV, Vol 2, 1980, pp 159-162.
106. The "planning of economically structurally- determining products, product groups and systems, procedures and technologies" was originally considered the "major element in national economic planning" at the beginning of the 1970's. Hans-Wolfgang Kinze et al, "National Economic Planning. Selected Texts," (East) Berlin, 1971, p 15. The "Resolution on Implementing the Economic System of Socialism in 1971," SOZIALBLATT, Part II, 1970, No 180, pp 731-746, revealed this planning principle. Cf Kurt Erdmann, "Renunciation of Previous Model for the Economic System of Socialism," DEUTSCHLAND ARCHIV, Vol 2, 1971,

pp 319-321.

107. "New Provisions...", loc cit, (footnote 104), p 6.
108. Ibid.
109. Cf "Meeting of the Commercial Law Committee," WIRTSCHAFTSRECHT, Vol 2, 1980, p 113.
110. The corresponding provisions in the planning ordinance "produce the problem of basing the results necessary to their realisation primarily on the conclusion of contracts"; Gerd Walter, "On Further Development of the Contract Law," STAAT UND RECHT, Vol 3, 1980, p 213.
111. Cf Juergen Ackermann et al, "Composition of Capital and Problems of Socialist Economic Planning," WIRTSCHAFTSWISSENSCHAFT, Vol 7, 1979, p 854.
112. Cf Joachim Kaden, loc cit, (footnote 95), p 487.
113. Horst Trauer, loc cit, (footnote 71), p 348.
114. Willy O. Wegenstein, "The Move to Another Dimension," BLICK DURCH DIE WIRTSCHAFT, 28 March 1978, p 3.
115. Cf Achim Boyer, Kurt Erdmann, Guenter Lauterbach, Manfred Helzer, "Price Problems in the GDR," second revised edition of "Current Problems of the GDR Pricing System," ANALYSEN UND BERICHTE AUS GESELLSCHAFT UND WISSENSCHAFT, Vol 1, 1980.

7456

C30: 2300

## GERMAN DEMOCRATIC REPUBLIC

### WORKING CONDITIONS CONTRIBUTE TO EFFICIENCY, JOB SATISFACTION

#### Tasks of Industrial Psychology

East Berlin TRIBUNE in German 29 Aug 80 p 5

[Interview by Jutta Wolf and Manfred Strzeletz with Dr Baerbel Matern, lecturer, Technical University, Dresden: "Training--Not for World Records But for New Work Tasks; GDR's Industrial Development Poses New Tasks for Industrial Psychologists"]

[Text] Dr Baerbel Matern was born in 1943. After graduating from high school, she studied psychology at Dresden Technical University from 1962 to 1967. Subsequently, she engaged in graduate studies and then worked as a research assistant at that university; in 1971, she took the Ph.D. degree. From 1971 to 1973, she worked for the industrial health service and in 1973 returned to the Technical University. Dr Matern lectured in the fields of industrial and general psychology. In 1975, she was appointed Assistant Professor and in 1977, she took the degree of Doctor of Science. Dr Matern's work at Dresden Technical University focuses on psychological work analysis and psychological training procedures for the industrial sector. Dr Matern is a member of the Council for Psychology at the GDR Ministry for University and Technical School Affairs.

What are the objectives of industrial psychology? What results has it produced so far? What problems is it confronted with? These and other questions were asked by many of the 4,000 researchers from over 50 countries, who a few weeks ago participated in the 22nd International Psychology Congress in Leipzig. Aside from psychologists, there were above all physicians, biologists, educators, philosophers, operations and process analysts. Dr Baerbel Matern participated in this international exchange of opinion and TRIBUNE talked to her about the tasks and possibilities of this scientific discipline.

[Question] What are the tasks of industrial psychology?

[Answer] Industrial psychology analyzes and evaluates work processes so as to modify them and to prepare the workers--by means of training and qualification measures--for new tasks. Furthermore, it examines the interrelationships between



certain types of work and their long- and short-term effects on the worker. The objective of the psychological modification of work is the unity of high productivity, freedom from negative influences, and personality development through work. This means: Aside from a high level of performance, the working processes must be designed so as not to be detrimental to the workers' health. That is to say--in accordance with the World Health Organization's (WHO) definition of health--not only freedom from disease, but also emotional and social well-being. Work is to contribute to the development of the personality.

[Question] What are the methods of your discipline?

[Answer] In analyzing work processes, industrial psychology draws on a large number of methods. Evaluation standards and criteria help in the assessment of the results of the analysis. We also examine the short-term effects on man of certain types of work, i.e. the effects produced during one particular work shift. Above all, I am referring here to fatigue, monotony, saturation, stress, etc. Long-term data, i.e. changes that occur in the course of several years of work and that affect man, his skills and his attributes are analyzed as well. Aside from being a practical discipline, industrial psychology has been developing in our country into an independent theoretical discipline. This theoretical advance is essential for effective work in industry, for "nothing is more practical than good theory."

[Question] How do you apply to practical work the results obtained?

[Answer] Frequently, the measures recommended by the psychologist are of an organizational nature. They may concern the division of labor among various individuals or the individual organization of working processes, including breaks. Here one should also include training measures aimed at improving performance.

[Question] Are there points of contact with other disciplines?

[Answer] With a great many disciplines. Depending on the branch of industry, the industrial psychologist collaborates with technologists of diverse disciplines; he or she cooperates with all work analysis-related disciplines, above all industrial medicine and industrial hygiene.

[Question] Can the scientists working in this field accomplish all these tasks?

[Answer] The GDR's research potential in the field of industrial psychology is not very great. Thus international and interdisciplinary cooperation and careful selection of the research projects are absolutely essential. Moreover, as a result of the development of technologies and procedures, industrial psychology is continuously confronted with new problems. To solve all these problems through their own research efforts exceeds the possibilities of the GDR scientists. To some extent, our research projects are coordinated with the projects pursued in the other CEMA states. Through division of labor, the socialist countries collaborate on solving various problems. Interdisciplinary cooperation is essential for solving key industrial problems and for ensuring the transfer of research results to the production process.

[Question] In our republic, what are the points of main emphasis?

[Answer] Our research focuses on the development of psychological work analysis and evaluation procedures for various branches of industry. These procedures are prerequisite to broader participation in the planning and correction of working processes.

[Question] Specifically what is this scientific discipline concerned with in regard to the modification of working processes and equipment?

[Answer] Changes in regard to equipment can be effected in various ways, e.g. through modifications concerning the division of functions between man and machinery. Modifications in the field of regulating and control technology--i.e. the point of contact with man--are a special case in this respect. As regards the modification of working processes, we are concerned with the division of labor among the workers. The presently much-discussed trend toward transition from assembly line work to modular production is an example of work modification that involves changes in the division of labor among the individuals concerned. The objective is to bring about a combination of working processes and a division of labor that neither bore nor overtax the individual.

[Question] How is it that more and more enterprises are abandoning assembly line work, changing over to modular production?

[Answer] Assembly line work is the prototype of psychologically badly organized work: It is monotonous and degrading. Modular production offers greater work satisfaction. The worker can choose working processes himself. The work is more varied and gives the worker the opportunity to use and--to some extent--develop his or her skills. Monotony no longer exists.

[Question] As a result of the development of technologies and procedures, the demands made on man are changing more and more rapidly. How can we reduce the periods of vocational adjustment and make the working processes more efficient?

[Answer] Now as ever, a vital task of industrial psychology is the development of training and adjustment procedures and of job-related training and advanced training. Psychological training procedures consist in the transmission of the requisite knowledge and skills, which must be practiced systematically and repeatedly. In this work, the psychologists use theoretical concepts of the psychology of reasoning, memorizing and learning. In this regard, the congress presented a great many new findings. Good examples of psychological training procedures are training programs that extend over several weeks and that combine theoretical knowledge with practical exercises in the production process, training programs for simulation facilities, e.g. power plant trainers, and adjustment aids in the form of external stores to be used individually.

[Question] Provided it is possible to make such generalizations--what are the principal training objectives?

[Answer] In view of the rapid development of technology and of the increasingly complex working processes, the main objective is to train the ability independently to develop professional knowledge and skills. On account of the fact that the workers' general education has been improved, this objective is now more readily attainable. We want to develop training procedures that--rather than making the

workers consumers of well-arranged knowledge and didactically well-taught skills--make them the psychologist's active partners in the development of new knowledge and skills.

[Question] So the industrial psychologists contribute to personality development?

[Answer] The development of the personality is the objective of psychological work modification. Work is the most important sphere of human life. Man spends most of his waking hours working. A good work collective is a vital factor in the development of personality attributes. The extent to which work-related cooperation and communication are practicable and the way in which performance evaluation and feedback is carried out are important criteria in regard to the evaluation of the quality of work modification measures.

[Question] How can industrial psychology help to make work easier, more interesting, more varied and more pleasant?

[Answer] To some extent, basic research in industrial psychology is concerned with examining the effects on man of various types of work. To this end, it is necessary to determine the degree of complexity, at which a job is experienced as interesting and stimulating, as neither overtaxing nor boring, and at which the work thus serves further to develop skills and attitudes. Such interrelationships are not generally constant; rather, they are dependent on personal constellations. The worker's qualifications and age are of great importance. On the basis of such research results, we are able to make recommendations regarding psychologically well-organized work and to make predictions concerning the effects of such work, e.g. absenteeism due to illness, turnover, and job satisfaction.

[Question] So appropriate work process modifications serve to reduce absenteeism due to illness?

[Answer] Undoubtedly, absenteeism due to illness and the quality of the work process modifications are closely interrelated. Badly organized, dull types of work that require only a fraction of the skills acquired not only generate monotony, but also give rise to job dissatisfaction and diminish work motivation. A negative view of one's work tends to prolong illnesses and also leads to more frequent visits to the doctor. It has been proved that the incidence and duration of illness depend not only on the state of health, but to a large extent on the way the individual views his or her work situation. The difference in absenteeism due to illness between individuals doing interesting and responsible work and individuals doing dull, monotonous work amounts to several percentage points.

[Question] As the facilities grow larger and more modern, a higher level of technological discipline is required; without such discipline, there occur breakdowns causing great damage. Can you help to prevent this?

[Answer] I think we can. Through analyses, we have shown again and again--and the congress, too, adduced telling examples to this effect--that in highly automated industrial enterprises a large percentage of the breakdowns is attributable to operating errors and that these errors account for most of the repair costs. One of the problems concerning highly automated equipment is the low degree of human involvement. Under normal conditions, man only performs control functions.

Thus the worker has fewer opportunities in the normal working process to use and further develop his or her knowledge and skills. By various methods, industrial psychology is trying to solve this problem. Firstly, we have been able--through accident-prevention training--to compensate the infrequency of learning possibilities in the normal working process. Secondly, we are testing various ways of letting the worker take over functions that in the past were assigned to other occupational categories, in order to give the worker more opportunities for independent, active work. For example, in addition to their normal duties, equipment operators have been entrusted with laboratory analyses and simple maintenance work.

[Question] What becomes of those who are tripped up by scientific-technological progress?

[Answer] In our society, technological progress does not trip up anybody. If as a result of the introduction of new production systems or rationalization measures fewer workers are required, the workers in our country are in time prepared for new work tasks, which are in accord with their level of qualification or for which they acquire the skills necessary. The effects of unemployment on the development of the personality, which were intensively discussed by representatives of Western countries at the 22nd International Congress for Psychology, are only of theoretical interest to us.

[Question] Did your academic discipline gain any new insights at the congress?

[Answer] The congress provided many new stimuli. An important experience was the international integration of theories and concepts that in the past were studied totally independent of each other. Likewise, the integration of problems pertaining to industrial psychology with problems concerning personality development was of great significance. Of great interest were the symposia on sociotechnological systems, on mental strain on the job, on stress at the work place and on certain aspects of activity regulation. Our work was given fresh impetus by the fact that particular subjects were discussed by researchers from various branches of psychology. However, in view of the large number of new theories, methods and results presented at the congress, a comprehensive evaluation will take several months.

#### Importance of Work Safety

East Berlin TRIBUNE in German 22 Aug 80 p 7

[Interview by Inge Ruthe and Lilo Porada with Prof Dr Horst Rehtanz, engineer, director, Central Work Safety Institute, Dresden: "Safe Work Maintains Satisfaction and Improves Performance Quality; Work Safety Is Not Achieved Apart From or in Addition to, But Always Together With Production"]

[Text] Prof Dr Horst Rehtanz was born in 1927 in Petriroda, Thuringia. Upon completion of his studies at Karl Marx University, Leipzig, he took his doctorate at Freiberg Mining College. From 1950 to 1954, Prof Rehtanz was a member of the State Planning Commission. From 1955 to 1970, he successively held the post of technical director at the Karl-Marx-Stadt Pipe and Cold Rolling Mill, at the



Freital "8 May 1945" Steel Mill and at the Burg "Hermann Matern" Rolling Mill. Since 1971, Prof Dr Rehtanz has been holding the office of director of the Dresden Central Institute for Work Safety at the State Secretariat for Labor and Wages. In 1971, Dr Rehtanz was elected deputy of the People's Chamber. He is a member of the FDGB [Free German Trade Union Federation] fraction and a member of the Committee for Labor and Social Policy.

[Question] We have been fortunate in that since the beginning of the year there have been fewer industrial accidents than during the corresponding period of the preceding year. What are the reasons underlying this positive development?

[Answer] In the first 6 months of 1980, industrial accidents declined by 7.01 percent, as compared to the first 6 months of 1979. The accident rate, i.e. the number of industrial accidents per 1,000 workers, dropped from 15.41 to 14.32.

[Question] In this regard, what was the situation 20 years ago?

[Answer] In 1959, the accident rate still was as high as 48.87. By 1979, it had dropped to 30.1. As compared to 1959, the number of industrial accidents decreased by 38.4 percent. During the same period, the incidence of fatal accidents declined by 56.2 percent.

[Question] Is this a consequence of the unity of economic and social policy?

[Answer] Undoubtedly. A high level of occupational safety is a basic concern of our socialist society. The unity of economic and social policy has also led to a more effective utilization of the objective and subjective conditions concerning the implementation of the party and trade union resolutions and of the legal norms and plan targets in the field of occupational hygiene and safety.

[Question] What is this reflected in?

[Answer] To give only one example of many: According to the report of the Central State Administration for Statistics concerning the implementation of the 1980 economic plan in the first 6 months of the year, 110,000 jobs were modified or restructured by means of the application of scientific-technological results and of scientific work organization measures, and difficult and unwholesome working conditions affecting 20,000 workers were eliminated.

[Question] In our country, what is the role of work safety?

[Answer] The role of work safety is determined by the position of man in socialism. Man is the central element; everything is done for the benefit of the workers. This is reflected in the principle of the unity of production and occupational safety. This means that all of the measures aimed at increasing production and labor productivity must at the same time meet the requirements of occupational hygiene and

safety. Conversely, the work safety measures must not impede production. Since under socialism the management and planning work proceeds from the needs of the people--which, as is well known, include the need for health, enjoyment of life, and job satisfaction--the work safety requirements cannot be met against, apart from or in addition to production; they can be met only through the integral unity linking occupational safety with the reproduction process.

[Question] Does work safety improve performance?

[Answer] Certainly, for injuries to health lead to a reduction in the social work potential and to personal suffering; they impede personality development and are a great drain on the social funds. Frequently, accidents also involve loss of materials, equipment and facilities. We have learned from experience that safe work places and equipment--i.e. implementation of the quality principle of maximum safety--affect work and production safety and product quality and promote production continuity. Working conditions characterized by a high degree of work safety, including observance of the threshold values concerning occupational hygiene, are prerequisite for enabling the workers fully to concentrate on the task at hand and for promoting their personality development.

[Question] In this regard, what are the conditions in the capitalist countries?

[Answer] Occupational safety is subordinated to the employers' only objective, namely profit maximization. This goes for the work safety measures not taken and for measures intended to protect the employees such as are adopted on the basis of legal norms and state or company programs. Undoubtedly, this approach yields a few results that scientifically and technologically are on a relatively high level and that benefit certain groups of workers.

[Question] But surely there are legal regulations.

[Answer] Naturally. And in addition, there are control organs, associations, specialists in enterprises and scientific institutions, professorships at the universities. However, it is obvious--and the high accident rate is proof of this--that work safety measures are adopted only insofar as the workers in a bitter class struggle wrest them from the employers and insofar as the employers permit them so as to improve the capital utilization conditions. Certain advances have been necessitated by the competition in the national and international markets. Moreover, occupational safety (production of work safety equipment, physical protection devices, and propaganda) has turned into a field for profitable capital investment.

[Question] And in the FRG?

[Answer] The FRG is no exception. According to the 1980 Accident Prevention Report of the Ministry for Labor and Social Affairs--which incidentally presents the results obtained in 1978--the industrial accident and occupational disease rate amounts to 83.4. In the FRG, the Bonn Friedrich Ebert Foundation published a paper on "Occupational Safety and Labor Protection in the Two German States." Allow me to quote from this paper: "Regarding the implementation of occupational hygiene and safety measures, the GDR has likewise been very successful. Per 1,000 full-time workers, the results achieved in the GDR in regard to work safety exceed those of the FRG. In this regard, however, one must take into consideration that in the

GDR intensive accident prevention--for which in the FRG the legal foundations were laid not until the second half of the 1960's--was initiated as early as the beginning of the 1950's. In this field, the GDR is in the lead and this gap must be closed--in the interest of the employees."

[Question] How do the GDR trade unions exercise their right of work safety control?

[Answer] Without the active participation of the trade union functionaries and without the control exercised by the work safety inspectors and the numerous volunteer functionaries in the enterprises, we would not have reached our high level of work safety. The work safety program is an integral part of the FDGB's constitutional right of "comprehensive codetermination in the state, the economy and society." The Labor Code and the Work Safety Regulations define the pertinent rights. Codetermination begins with the establishment of legal norms; it is laid down in the plans and firmly established in everyday life.

[Question] What are the primary concerns of your institute?

[Answer] Our research focuses on the following fields:

- Further development of effective work safety by integrating it in management and planning and in the incentive programs;
- increasing the effectiveness of education and training in the field of work safety;
- improving the workers' technological and organizational protection against accidents;
- improving the workers' protection against noise and vibration;
- increasing the effectiveness of the protection against noxious substances;
- ensuring work safety by means of protective devices to be used by the individual worker.

[Question] What is the significance of practical work in this respect?

[Answer] The scientific research work is carried out in close collaboration with the people engaged in practical work. The transmission of the research results takes place at an early stage, namely during the joint problem-solving efforts; it is carried out through patents and standards, through incorporation in the legal norms and through our own recommendations. There are other contributing elements, e.g. our information days, the publications on the various forms of training and advanced training, our journal ARBEITSSCHUTZ UND ARBEITSHYGIENE [Occupational Safety and Hygiene] and the Occupational Safety and Hygiene Exhibition.

[Question] Who are the most important partners?

[Answer] On the one hand, we obtain important information available in the GDR and abroad from scientific literature, patent specifications, documentations, conferences and congresses. This year (1980), our institute has become the National Center of the International Information Center for Occupational Safety and Hygiene of the International Labor Organization (ILO). For our work and for all interested parties in the GDR, we thus have at our disposal a large store of international knowledge and experience. Through many years of cooperation, we are linked with the work safety institutes of the socialist countries.

[Question] And on the other hand?

[Answer] In the realms of science and practical work, work safety as an interdisciplinary field can become effective only through the cooperation of the most diverse fields such as technology, medicine, the natural and the social sciences, pedagogics, psychology. In 1979, we established the Research Association for Work Safety, in order to make work safety research more effective.

[Question] You are a scientist and at the same time deputy of the People's Chamber. What interaction is there between these two functions?

[Answer] In my capacity as deputy of the FDGB fraction, I am a member of the Committee for Labor and Social Policy. Through this function, I obtain a great deal of information for my work as director of the institute; moreover, as a deputy I am provided with many opportunities effectively to apply to practical work the results obtained by the staff members of the Central Work Safety Institute. In the Committee, we are dealing with problems concerning utilization of the social work potential. In this regard, the deputies are concerned above all with reducing absenteeism due to illness, with problems concerning work safety and with modification of the working and living conditions.

[Question] At present, what are the limits of the work safety program?

[Answer] Since in our country there are no limits based on the social system, the only obstacles are found in areas, where we have not yet been able to identify all the causes underlying injuries to health at the work place. Insofar as we can throw light on the various causes--this goes for potential as well as for present hazards--we will be extending the foundation for pertinent measures and means.

[Question] Do you think we may be able to eliminate industrial accidents caused by human error by entirely relying on technological means?

[Answer] In accordance with the order of priority of the work safety measures and with Article 3 of the Work Safety Decree, we are always interested in application of technological means. Naturally, human error cannot entirely be ruled out. But it is imperative that we modify the working conditions so that errors are largely eliminated. The physical and psychological conditions governing performance are of crucial importance.

[Question] Could you name some of these conditions?

[Answer] We must develop and consolidate work safety-related attitudes, needs, interests, feelings, skills, knowledge and habits. And here is another practical insight for all those who bear responsibility in the field of occupational safety and hygiene: If accidents are caused by faulty conduct, the countermeasures should not be based on a simple reversal of conduct. It is necessary to find ways of preventing faulty conduct through technical or organizational measures.



## HARD REALITIES OF ECONOMIC SITUATION DESCRIBED

Warsaw ZYCIE GOSPODARCZE in Polish No 43, 26 Oct 80 p 3

[Article by Stanislaw Chelstowski: "The Current Economic Situation--Harsh Realities"]

[Text] Debate about the sources of current crisis and about the process of renewal naturally involves, first and foremost, the social and political sphere, tending to find it in the causes of distortions while perceiving the foundation for a way out of the difficulties in the enhancement--at times, indeed, restoration--of socialist democracy. In a long-term view, this is certainly a fundamental issue. Yet, while working out changes in this sphere, we should not forget about the current economic situation which is decisive for matters that, though perhaps more pedestrian, profoundly affect society's mood, in other words, the possibilities of maintaining the standard of living of basic segments of the population.

Such possibilities are slim, and, to stay close to hard economic realities, it should be said they are minimal. In the coming weeks or months we are, in fact, about to confront further imbalances in the essential economic disproportions with all the consequences this involves. Also, no realistic opportunities can be seen for obtaining some external resources to mitigate this dramatic situation.

## After Three Quarters of the Year

While raising the problems of the current economic situation, I am aware that this is not an issue society sees as the most "important" at this time. It is not the most important because taking account of economic realities in many cases undermines lofty attempts to accomplish change in other areas. Another reason is that discussion of economic possibilities, or rather impossibilities, is frequently regarded as an attempt to torpedo social activism and to argue that political renewal should be put off until better times, while coping, for now, with the daily routine work. I have no such intentions--on the contrary, as I will point out later--I believe that profound and rapid change is needed precisely in the economy because this is the field in which renewal should be accomplished with particular intensity. This is just the reason, however, why one needs to know the situation as it really is and to realize that, unless the belt is tightened hard, we will be unable to emerge from the current economic crisis, which will be projected with exceptional force onto the entire process of modifications.

Three trends seem to be most important in the present situation. They involve industrial materials supply, foreign trade and agriculture. As a consequence, they are bound to have an unfortunately adverse impact on the domestic market.

Industrial output (counted as value of sales) rose 3.6 percent over the first 9 months of this year. This increase could be regarded as fair, if not for the fact that it is due to the results of the first 2 quarters. According to official data, in August industrial production was 10 percent below last year's figure, and it was 3 percent lower in September. It is difficult to assess to what extent this represents an actual production decline and to what extent it is due to the fact that enterprise managers began to submit unaltered information. Moreover the fourth quarter cannot be expected to bring marked improvement in output because this is not warranted by supply possibilities, as estimated at this time.

The August-September decline in output is most frequently blamed on strikes in many work establishments. They can be seen as its most immediate cause, the last drop that completed a long-existing economic disintegration.

Its cause should, therefore, be analyzed more in depth, if we are to find a long-term solution now. The critical situation in industrial materials supply has been developing for a long time and it began to be felt with particular acuteness 2 years ago because of stoppages and power outages. Its causes were to be found in erroneous economic policies, a virtual atrophy of central planning and deterioration of overall economic effectiveness. There is no room here to analyze them, but it is beyond doubt that these causes were for the most part rooted in internal, mostly subjective, conditionings, to use a term recently in fashion.

Unsound subjective decisions changed, however, into objectively existing realities. These realities would have been exposed sooner and much more boldly were it not for the steadily increasing foreign debt. Opportunities to incur more debt are, however, not limitless. At this time, if we have not reached it yet, we are very close to the threshold where it will be impossible to increase Poland's debt, or, in any event, it will be impossible to increase it in a manner which could allay our domestic difficulties. I will return to this problem later.

The strikes were, among other things, an outcome of escalation of this state of affairs. This form of protest of the working class obviously enhances existing difficulties, but it was recognized by many workers as necessary for removal of the underlying causes rooted, to put it comprehensively, in the methods of exercise of power, including the modes of economic management and control. It is in this sphere, therefore, that we must work out radical change. Not only because this is the only way to remove original underlying causes of current difficulties, but also in order to prevent further work stoppages which--regardless of the intentions--additionally unsettle the economy.

Before I return to my discussion of the current economic situation, I will add one more comment. Wages undoubtedly rank high among the workers' demands. From the social point of view, they have a valid justification in the increase of living costs over the recent years. At least two conclusions must be drawn from this. First, current pay raises should not be regarded as wage increments through

which various disproportions and income irregularities that have developed over the years will be equalized. Instead, they should be viewed as compensation for the rising prices of basic foodstuffs with this compensation going, in the first place, to those most affected by price increases. Second, hopes of regaining equilibrium should not be related to inflationary methods, because the public does not want to accept them--at any rate, not in their present form.

This observation influences my assessment of the economic situation in which a declining trend in output is accompanied by unusually rapid increases in personal incomes. The latter can no longer be equalized by price increases unless they are equalized very slightly and only in higher income brackets.

#### How Can We Reverse the Trend?

Thus, the fundamental question is now reduced to an explanation of the causes of the downward trend in industrial output in recent months, which at the same time will clarify another problem--can this trend be reversed once the subjective causes are removed?

As mentioned earlier, the materials supply situation is the fundamental cause. A very major portion of industrial raw materials supply is imported (a more precise determination of what percentage of total supplies this portion constitutes is, in my opinion, impossible, while reliance on existing prices may lead to mistaken conclusions). This portion is even more significant--with the current distribution of co-production--because of supply shortages rapidly impacting on virtually all of industry. Meanwhile, import possibilities are extremely limited for the next several months. Suffice it to say that credit repayment and servicing during the current quarter and the subsequent one substantially exceed estimated export revenue.

Considering that the bulk of obtainable credits must be allotted to increased imports of grains and other farm produce, few resources are left for industrial supply, fewer than in a comparable period in the past years. On the other hand, reserve supplies of many important raw materials and production materials are low (primarily in metallurgy, chemical industry and light industry). Furthermore, there is the situation in the power industry where planned repairs have not been completed in electric power plants (88 percent of the plan for the first 9 months of the year), while by September 1 none of the turbine units planned for completion this year had been put into operation. Coal reserve supplies in power plants in early September were nearly 0.7 million tons less than a year before.

We are no better off with domestic raw materials, especially coal. We fully understand that the miners' demands are well-founded--but this does not alter the fact that at least in the immediate future, if these demands are met, a definite decline in extraction output must follow. It will not be possible to make up for this decline by improved organization of work. A similar situation obtains in copper and in some other raw materials. Export restrictions cannot--or at least should not--be considered, because they are bound to affect import possibilities.

Thus, the current supply situation carries the threat of a chain reaction leading to stoppages in a very substantial segment of our industry. It would be an uncontrolled reaction with all the consequences this entails. It appears, therefore, that the only solution lies in deliberate centralized channelling of all available materials supply to selected subbranches, coupled with equally deliberate and centrally controlled restrictions on, or even periodical halting of, production of particular commodity groups.

Decisions on such matters must obviously be preceded by appropriate calculations which should include not the benefits, but minor losses, primarily those perceived from society's point of view. Such calculations should be made on the central level since only on this level is there a chance for this point of view to be considered at this time. This statement can be supported by the fact that there is one industrial sector--the capital goods industry--that exceeded its plan for the three quarters substantially, by 25 billion zlotys, irrespective of difficulties in materials supply and strikes. This means that a comparable sum must be added to increase investment outlays, although with the reduction of the actual scope of investment, these capital goods will for the most part end up in storage sites and warehouses, thus increasing the value of uninstalled machinery and equipment. (And that value is already sizable--as of 31 March 1980 it was 48.5 billion zlotys.) On the other hand, deliveries of export-designated goods fall behind the plan, principally with reference to the second payments area (capitalist countries). The annual plan of exports to the second payments area was 67.6 percent fulfilled over the 9 months of this year.

Centralization is needed in import policies, unpopular as this stipulation is at this time. Despite the difficulties in payments, the capital goods import plan has been fulfilled over the last 9 months, although considerable shortfalls have been noted in imports of consumer supply goods (with respect to both the first and the second payments area).

In farming, the situation is also very tense. Although grain yields and crops this year are better (approximately 10 percent in crops) than a year ago last year, they are much worse than planned. According to estimates, the potato crop will be the lowest in 20 years (nearly 25 percent below last year's figure). The sugar beet crop will also be poor, so that sugar production will substantially decrease in comparison with the already adverse results of last year.

The poor results in plant production are bound to affect cattle breeding and, ultimately, state procurement of meat and milk. In order to prevent further disintegration of the foodstuffs market, and to assure a minimum supply for everyone, it appears necessary in this situation to institute meat rationing, and perhaps butter rationing as well. This must be seen as a necessary evil, but no other solution is in sight.

Clearly, the situation in industrial production and in farming must affect the domestic market. In the current year the gap between incomes and the supply of goods and services will increase. While in 1978 net market deliveries per 100 zlotys of monetary income amounted to approximately 98 zlotys, the 1979 figure was 96 zlotys and in 1980 it will be 90 zlotys. This is, of course, a financial index that falls short of reflecting imbalances in product mix, quality and other factors.



## The Production Contract

These fragmentary and incomplete data do portray, to a great extent, however, the dramatic situation of our economy. Deliberately omitted from the discussion presented above were the matters concerning investments and construction, requiring separate analysis based on more complete data than are available to me. In general, it can be said, however, that things are not going the right way in this area--the outlays (this is to say, money expended) will conform with, or slightly exceed, the planned figures, while substantive results will be significantly lower. Unless we halt not several, but several dozen, ongoing investment projects, we will be unable to put our investments in order, and thus reverse the trend described above. It will be impossible, as well, to institute indispensable modifications in investment structure.

This dramatic situation did not arise in the last few weeks or months. It had been developing because of increases in materials intensiveness and imports' intensiveness for production, because of declining investment effectiveness and because of a structure of production that did not conform to society's needs. Yet in the course of several weeks or even months we will be unable substantially to decrease materials intensiveness, improve investment effectiveness, or restructure the economy. On the other hand, we have to stop--in the course of several weeks, or even days--the process of disintegration and abrupt intensification of disproportions, and we must create a foundation for economic consolidation for implementing socially the most important tasks.

In pointing out the need for various ad hoc measures (which are needed in much greater numbers than suggested in this article) I frequently referred to centralization of particular decisions. At the same time, I reaffirmed the exceptionally urgent need for renewal in the methods of economic management. This can be seen to contain contradictions because, among other things, excessive centralization is now blamed for the current dramatic situation of our economy, while decentralization is perceived as a measure for removing existing errors and deficiencies.

Indeed, the centralization of the last few years was endowed with all the shortcomings of this method, while being deprived of its advantages.

This is to say, centralization incapacitated the enterprises and largely absolved them of responsibility, while failing to concentrate the forces and materials in the socially most important sectors. It neutralized the initiative and activity of immediate producers directing their efforts to the accomplishment of frequently formal, neither economically nor socially justified, indexes. Still, it did not assure effective control over investment processes and the distribution of scarce resources in a fashion justified by the needs. It failed to overcome, and frequently incited, particular interests, thereby intensifying, or allowing the intensification of, most of the imbalances.

Of course, this is not what I mean when I refer to centralization. I believe, however, that in an emergency situation--which is what our economy is in at this time--there is a need for extremely flexible management, indeed, command from one single center. It is not possible to refer to cost effectiveness calculations

performed on the ministry level or on subbranch level when a number of ministry or subbranch interests are, of necessity, brutally and ruthlessly overruled, and when it is necessary to suffer losses, by no means small, in order to avoid much greater losses. For example, it is difficult to expect the automotive industry to offer to halt the manufacture of Polonez cars, and the Unita factory can hardly be expected to refrain for a specified period from manufacturing color television sets, though these are the kind of decisions that must be made at this time. Similarly, difficult as it is for a particular subbranch to yield to another subbranch all of its allocated import resources when it is evident that such a move would cause tremendous repercussions, possibly even the closing of certain plants. Even the best economic parameters are of no use in such situations.

Do actions of this kind, however, exclude the possibility of a change in economic management style to imbue this style with genuinely social characteristics? They certainly do nothing to facilitate this, yet at this time these processes must be reconciled as much as possible. This means that while we firmly delimit the possibilities of obtaining scarce production resources in the plans, we must conclude social contracts of a certain type with plant crews. They are the ones, after all, who will ultimately determine what will become of those scarce resources and how they will be utilized. It is necessary, therefore, to abolish most of the ceiling limits. The ones to be retained--mostly in supplies and imports--must be unequivocally defined, and their implementation must be strictly adhered to, just as in the "horizontal" contracts, i.e., those concluded with the receivers of ordered goods.

It is also necessary to abolish most of the gross type indexes without waiting for a sweeping reform. At this time, we are in no position to launch powerful efficiency incentives, but let us, at least, eliminate the counterincentives. This is the only way to create a level of understanding with plant personnel. I fear that without such a level of understanding this kind of plant personnel will simply refuse to accept the plan, which would not be worthy the paper it is printed on without acceptance of this kind.

All of these measures are temporary, of course, although their significance is tremendous at this time. Whether they will be effective depends on the wisdom, decisiveness and correct assessment of the situation on the central level, as well as on the public mood, political climate and psychological attitude of most plant crews. This, in turn, is strongly affected by the course of a number of processes not connected directly with the economy. Thus, there is perhaps little that appeals for efficient performance can achieve in this situation. Much more can be accomplished by specifically coming to terms with employee groups, treated as partners rather than adversaries on every level, and by clear exposition of the existing situation, though this would often require taking the blame because it is not the plant crews' fault that the situation is what it is. Ultimately, they are the ones to undo the results of the errors--therefore, they have a right to codetermine how to accomplish this and to closely supervise those who provide guidance from various levels.

## STUDY ASSESSES PROFITABILITY OF LIVESTOCK PRODUCTION

Warsaw NOWE ROLNICTWO in Polish 1-15, 16-21 Jul 80

[Article by Adam Roznoch: "Economic Production Conditions and Developmental Trends of Livestock Production on Private Farms in 1979-1980"]

[No 13, 1-15 Jul 80 pp 10-13]

### Hog Production

[Text] In this article (on the basis of the results of questionnaires distributed in November 1979 at the Institute of Agricultural Economy (IER)) we are presenting the assessment and opinions of farmers concerning the current economic production situation in livestock production and the farmers' production intentions for 1980. The research covered a total of 4,950 private peasant farms located throughout the country, including 1,390 multipurpose farms, 1,380 farms specializing in various types of livestock production, and 1,680 farms carrying on agricultural bookkeeping.

The possibilities for developing hog production, as well as for the other types of livestock production, are determined by a host of various economic-production factors, including (particularly during short periods of a few or even a dozen and some months) first of all fodder reserves and production profitability.

The current economic-production situation in the realm of hog production is far less favorable than during the comparable period last year. Particularly unfavorable is the fodder situation, directly caused by the poor harvests of basic fodder crops, especially grain. The decline in grain production throughout all agriculture is estimated at about 4.2 million tons, which is about 19.6 percent of last year's production. This great decline in grain production was the result both of smaller grain yields, owing to the adverse weather conditions and the lower amounts of fertilizer applications, and the reduction (by 2.9 percent) in the area cultivated with grain on private farms.

[Key to Tables 1 and 2, continued]

(9) Total

(10) Breakdown by region

(a) Type of farm

(b) Current fodder situation compared to last year

(c) Better (d) Same (e) Worse (f) No response

(g) Percentage of farms on which current own fodder resources for hog-raising are:

(h) Adequate (i) Inadequate (j) Don't know yet (k) Have no hogs

The research shows that on about 79 percent of the farms the harvests of grain were lower than the previous year, while on 11 percent they were higher. The cereal crop failure occurred in all regions, being particularly severe in the following regions\*: Northeastern (II), Central Eastern (VI), Central (I), and Central Western (VII).

A far more favorable assessment was assigned to harvests of potatoes, up by about 6.3 percent over last year throughout agriculture as a whole. Larger potato harvests were noted on more than 57 percent of the farms questioned, and lower only on 16 percent, by contrast. The relatively better potato production this year was found in the following regions: Northeastern (II) and Northern (III), in which larger harvests occurred on about 82 percent of the farms.

Nevertheless, it should be mentioned that many of the farmers who gave a favorable assessment of potato harvests pointed out the grave difficulties in handling them properly, because the small number of steamer columns and the shortage of coal on many farms made it impossible to ensilage the potatoes, and the shortage of straw made it difficult to pit them properly. At the same time, at many wholesale points even potatoes designated for sales within the framework of contract agreements were not accepted. In this situation one must count on the fact that the losses in the storage of the potatoes may be substantially greater than they have usually been in the past.

Although they have greatly eased the effects of the crop failures of grain, the good potato harvests cannot completely make up for the shortage of grain fodder, which is felt exceptionally keenly in the production of pigs, because in this branch of livestock production resources of grain and industrially-produced feed have a decisive influence on the general fodder situation. This is also why the assessments of the farmers asked about the general fodder situation for hog production are not very favor-

\*The division into regions is based on the principles adopted by the Planning Commission of the Council of Ministers, as follows: Region I -- Central, Region II -- Northeastern, Region III -- Northern, Region IV -- Southern, Region V -- Southeastern, Region VI -- Central Eastern, Region VII -- Central Western, and Region VIII -- Southwestern.



able. From them we see that at present more than 38 percent of the farms state the fodder situation for hogs is worse than a year ago, and it is better on only about 17 percent of the farms (Table 1).

According to the estimates of our respondents, the fodder resources accumulated will fully meet the needs up until the next harvests on only about 37 percent of the farms, but on one farm out of every three they are inadequate. About 14 percent of the farmers could not yet say for certain just how their fodder situation would turn out (Table 2). A particularly difficult fodder situation is occurring on those farms which specialize in hog production, farms which to a great extent base their production on their own fodder. On about 67 percent of these farms, the fodder resources accumulated are inadequate to meet complete production demands.

In the regional breakdown, the greatest shortage of fodder is found in the following regions: Central (I), Northeastern (II), and Central Western (VII).

Worthy of note is the fact that only 27 percent of the farmers suffering a shortage of their own fodder intend to reduce hog production on that account. On the other hand, over 57 percent of the farmers want to maintain or even expand their production of pork slaughter animals, increasing their purchases of industrially-produced feed to that end.

The unfavorable fodder situation is making the economic conditions of hog production much worse, because the crop failure for the basic fodder crops, especially grain, is driving up their prices substantially in turnovers among farmers. The free-market price of rye (a basic fodder grain for the production of pigs), for example, increased by about 12 percent from August to December 1979 (to 643 zlotys per 0.1 ton), and reached a level more than 17 percent higher than in December 1978. Because the wholesale price for pork slaughter animals from June 1978 remain unchanged, the ratio between the wholesale price for pork slaughter animals and the free-market price for rye has become worse. In December 1979 this ratio fell to a level of 6.93, which is far below the level of the similar period in 1978 and even lower than the year 1977, when it was exceptionally unfavorable in this regard. The price ratios for the wholesaling of pork slaughter animals under contract to the free-market prices of rye and potatoes are as follows:

Year	Rye (in December)	Potatoes
1977	7.42	15.15
1978	8.08	16.26
1979	6.93	16.10

The drop noted in the ratio of the wholesale prices for pork slaughter animals to the prices of rye, given the simultaneous decline in the ratio of livestock wholesale prices to potato prices, greatly reduced the profitability of producing pork slaughter animals.

In January 1980 there was a further drop in the ratio of wholesale prices on pork slaughter animals to the free-market prices of rye and potatoes. The price of rye in turnovers between farmers increased by more than 4 percent in relation to December 1979 prices (by nearly 21 percent in relation to January 1979 prices). At the same time there was a further rise in the free-market price of potatoes (by 4.7 percent over the December price), as the result of which the price noted in January of this year exceeded by more than 2 percent the price in the comparable period in 1979.

On the basis of observations of the past development of the market situation, we can expect the trends toward increased free-market prices on basic fodder crops for hogs to remain up until the next harvests. Therefore, if over the coming period the past hog wholesale prices remain the same, then the decline in the profitability of livestock production will pass the critical point, with the consequences normal for such a situation becoming evident.

It is true that some improvement in production profitability may be anticipated on those farms able to take advantage of the system of bonuses for fodder savings, as introduced 1 January of this year, but these will be mainly those farms which have managed to accumulate sufficient resources of their own fodder, and according to our research there are not many such farms. Therefore, it seems as though the rise in the profitability of hog production only on those farms able to adopt this system will not be able to make up for the possible effects of the decline in production profitability on the other farms. Hence, despite the obvious advantages, the system of bonuses for saving fodder cannot substitute for changes in the wholesale prices of pork slaughter animals to include all hog producers.

According to the assessments of the farmers questioned, the production of pork slaughter animals is presently profitable on about 47.7 percent of the farms, and of these it is very profitable on 9.1 percent. On the other hand, on more than 11 percent of the farms it is decidedly unprofitable (Table 3).

It is worth noting that on over 18 percent of the farms, porker production is already on the fringes of profitability (nearly unprofitable). Here we must add that even in the fall of 1978, investigations of a similar nature (conducted in this same group of farms) showed that the production of pork slaughter animals was profitable on about 54 percent of the farms, including about 14 percent on which it was very profitable. On about 8.9 percent of the farms it was decidedly unprofitable to raise porkers. On the other hand, in the spring of 1979 the percentage of farms on which livestock production was profitable declined to 48.7 percent (including 10.1 percent on which it was very profitable), and the share of farms on which it was decidedly unprofitable rose to 9.6 percent.

Table 3. Assessment of the Profitability of the Production of Pigs (Percentage of Total Number of Farms Examined in Given Group)

Coulometer	Electrical resistance in ohms - to produce 10									
	(a)		(b) present		(c) was taken				(d) treatment	
	(f) resistance	(g) resistance	(h) resistance	(i) resistance	(j) resistance	(k) resistance	(l) resistance	(m) resistance	(n) resistance	(o) resistance
(1)	22.2	22.8	4.1	1.2	21.6	21.2	20.9	20.6	20.3	20.0
(2)	22.1	22.6	3.6	1.3	20.4	20.0	19.7	19.4	19.1	18.8
(3)	21.1	21.4	3.6	2.1	20.9	20.3	19.9	19.6	19.3	19.0
(4)	21.1	20.9	6.6	3.6	19.2	18.9	18.6	18.3	18.0	17.7
(5)	20.8	21.2	1.1	0.8	20.3	20.0	19.7	19.4	19.1	18.8
(6)	20.4	20.9	1.7	1.1	20.1	19.7	19.4	19.1	18.8	18.5
(7)	16.4	16.9	1.1	0.6	16.0	15.7	15.4	15.1	14.8	14.5
(8)	22.6	21.7	4.8	1.1	20.9	19.6	18.3	17.0	15.7	14.4
(9)	22.6	21.7	4.8	1.1	20.9	19.6	18.3	17.0	15.7	14.4

Table 4. Farmers' Intentions in the Realm of Raising Pigs (Percentage of Total Number of Farms Examined in Given Group)

(a) Lampenartname	(b) 1. hohes Glasrohr, ohne Glasglocke		(c) 2. hohes Glasrohr, mit Glasglocke		Werkstoff	
	Werkstoff (d)	prozentuale Lichtleistung (e)	Werkstoff (f)	prozentuale Lichtleistung (g)	Werkstoff (h)	prozentuale Lichtleistung (i)
Wiederkentner (1)	22.1	50.6	11.7	12.6	13.5	40.2
Barthelme (2)	21.2	46.2	17.2	12.4	15.1	47.8
Wiederkentner (3)	19.0	41.1	15.3	21.4	13.5	42.1
Wiederkentner (4)	22.7	48.2	21.9	2.2	18.2	55.5
Wiederkentner (5)	19.5	39.0	2.6	39.0	13.0	4.0
Wiederkentner (6)	11.2	30.2	13.3	36.2	8.7	40.0
Wiederkentner (7)	10.3	23.5	10.2	57.9	13.2	17.6
Wiederkentner (8)	20.7	45.8	16.7	16.0	11.2	46.6
Wiederkentner (9)						

[Key to Tables 3 and 4]  
(1)-(9) as in Tables 1 and 2

(a)-(f) see next page

[Key to Tables 3 and 4 continued]

Table 3

(a) Percentage of respondents by assessment of production	(f) Very profitable
(b) Young pigs	(g) Profitable, but not profitable enough
(c) Piglets	(h) Nearly unprofitable
(d) Porkers	(i) Decidedly unprofitable
(e) Type of Farm	(j) Hard to say

Table 4

(a) Type of farm	(d) Plan to increase
(b) Total pig-raising	(e) Plan to keep it the same
(c) Of the above, sows	(f) Plan to reduce
	(g) No response

Relatively speaking the largest percentage of farmers (about 47-55 percent) stating that hog production is profitable falls into the group of multi-purpose farms of small size (under 7 hectares) specializing in hog production.

Despite the fact that it is based to a large extent on young pigs and concentrated feed which is purchased, the high profitability of livestock production on small farms stems first of all from the rather low level of grain consumption, which, as we have emphasized, at the present time is important in calculating the profitability of production. Agricultural bookkeeping data show that farms under 7 hectares in area use an average of about 250-260 kilograms of concentrated feed per 100 kilograms of pork slaughter animals, while farms of 15 hectares and over use about 22-26 percent more concentrated feed to produce the same amount\*. In addition, small farms also use marginal fodder to feed their livestock, such as leftovers from the household, which factor reduces the production costs still further.

On specialized farms with high profitability in the production of pork slaughter animals, the relatively low grain intensiveness of production is also a factor in this profitability, because research conducted by IER\*\* shows that these farms average 271 kilograms of concentrated feed to produce 100 kilograms of pork slaughter animals, or over 16 percent less than multi-purpose farms with 15 or more hectares, but here we must

\*"Wyniki rachunkowosci rolnej gospodarstw indywidualnych 1977/1978" [The results of agricultural bookkeeping of private farms 1977-1978]. Warsaw, IER, 1979.

\*\*M. Kazmierczak. "Wyniki produkcyjne i ekonomiczne gospodarstw chlopskich specjalizujacych sie w produkcji zwierzeczej" [Production and economic results of peasant farms specializing in livestock production]. Warsaw, 1979, IER. Series: Komunikaty. Raporty. Ekspertyzy. No 60.



emphasize that in the group of farms specializing in the production of pork slaughter animals, there is also a high percentage of farms which consider the production of porkers to be decidedly unprofitable. These are above all those farms which had to make additional investments to expand their hog-raising, and these investments greatly increased production costs.

Among all age groups, the greatest profitability was to be found (as in previous research) in the production of young pigs, owing to the consistent high prices for young pigs in turnovers among farmers, despite the fact that during the latter half of 1979, there was a slight drop in prices, owing to reduced demand, because GUS data show that in the period from May to November 1979 the prices on young pigs declined by about 12 percent. It is true that in December this tendency was slowed, and in January of this year there was even a rise in prices, but this increase seems temporary and to be the result mainly of the fact that socialized farms increased their purchases of young pigs during time. This is confirmed by the January livestock census, which shows a substantial shift of young pigs from the private sector to the socialized sector. As a result, on the socialized farms there was a rise in the number of young pigs, while there was a decline on the private farms.

The firm high prices on young pigs are encouraging farmers to increase their production. So too beginning in March 1979 the number of sows bred at breeding centers has still been greater than the year before (the index for the breeding of sows is remaining at a level above 100). At the same time, as the results of the January census show, the growth tendencies are remaining in the number of sows kept for raising, especially those in pig. This is creating a potential biological base for expanding the number of hogs during the next few months, but this increase will depend above all on the extent to which the economic factors of production are improved.

The current intentions of the farmers questioned show that under the present economic-production conditions, we can count on having only one farm in five increase the number of pork slaughter animals in the near future. At the same time about 16.7 percent of the farms will probably show a decline. A still smaller percentage of farmers (14.2 percent) intend to increase the number of sows, while 3.6 percent of the farmers intend to reduce the number (Table 4).

It must be stated that the farmer intentions presented concerning the further structuring of hog production are less auspicious than in the fall of 1978 or the spring of 1979. Hence, this means that if these intentions are fully carried out, then on the scale of the entire private economy during the latter half of 1980, despite the potential for improving the production situation, there may be a steepening of the current decline in the total number of hogs. This would mean a cut in hog wholesaling in 1981. Ultimately the amount of hogs at wholesale

next year will be determined by the economic conditions for the production of pork slaughter animals during the next few months and the fodder situation during the spring and summer period. Here it must be emphasized that given current resources of the farms' own fodder, hog production can be expanded on most farms, if production profitability is improved above all, because owing to the great mobility of fodder, if conditions are favorable to the profitability of production, then there can be a shift of fodder for pork production from other branches of livestock production, a shift which would help make better use of potato resources and reduce the grain intensiveness of hog production.

As we can see from the current structure of hog levels throughout all of agriculture (as shown by the January livestock census), sales of pork slaughter animals in 1980, despite some decline during the first half of the year, will probably remain at last year's level, that is, at about 1,960,000 tons, or may even slightly exceed this figure.

Alongside fodder resources and the declining profitability of production, what sort of factors are currently hampering the rise in hog production to the greatest extent? The views of the farmers questioned show that alongside the above-mentioned factors, on more than 27 percent of the farms greater hog production is also limited by the small labor supply. This fact is especially frequently mentioned on farms of small and intermediate size (under 10 hectares), on which we find the largest number of farmers (about 25-32 percent) over the age of 60. The shortage of labor on these farms is accentuated by the very great undermechanization of hog production and the difficulties in buying appropriate farm machinery and tools.

Up until recently one could still talk about certain labor reserves on private farms, but now, along with the development of nonagricultural sectors of the national economy which are creating a great demand for labor resources, these reserves have already been exhausted. On the other hand the process of substituting machine labor for human labor is taking on greater significance. This places before economic policy the task of accelerating the development of agricultural mechanization, which was emphasized with particular force in the resolution of the Eighth Party Congress.

In second place among the factors standing in the way of increases in hog production, about 18.5 percent of the farmers list an inadequate supply of concentrated feed. Here we must add that difficulties in buying concentrated feed were listed by far more, half of all the farmers questioned. These difficulties mean that despite the high grain prices on the free market, more than 80 percent of the farmers would prefer at present to allocate grain for fodder rather than sell it and count on buying concentrated feed.

Table 1. Assessment of the Fodder Situation for Cattle (Percentage of Total Number of Farms Examined in a Given Group)

(a) Comparison	(b) Qibara v. current assessment of the fodder situation (c) Better (d) Same (e) Worse (f) No response			
	(c) Better	(d) Same	(e) Worse	(f) No response
Multipurpose farms (1)	24.4	32.7	34.0	8.9
Specialized farms (2)	26.4	31.6	32.7	9.3
Total farms (3)	25.3	32.7	34.1	12.9
By type of specialization (4)				
- mixed farming (5)	22.1	40.1	14.9	19.9
- by the region (6)	26.7	40.1	29.9	3.9
- by the region (7)	32.1	32.7	26.2	9.9
- by the region (8)	11.1	35.1	19.1	34.9
By the region (9)	22.1	31.1	30.9	8.9
By the region (10)				
- I	24.1	31.1	21.2	6.1
- II	24.1	31.1	31.1	13.9
- III	24.1	31.1	21.1	24.9
- IV	24.1	31.1	21.1	24.9
- V	24.1	31.1	21.1	24.9
- VI	24.1	31.1	21.1	24.9
- VII	24.1	31.1	21.1	24.9
- VIII	24.1	31.1	21.1	24.9

\*The division into regions is based on the principles adopted by the Planning Commission of the Council of Ministers, as follows: Region I -- Central, Region II -- Northeastern, Region III -- Northern, Region IV -- Southern, Region V -- Southeastern, Region VI -- Central Eastern, Region VII -- Central Western, and Region VIII -- Southwestern.

[Rev]

(a) Type of farm

(b) Current fodder situation for cattle compared to last year is:

(c) Better (d) Same (e) Worse (f) No response

(1) Multipurpose

(2) Conducting agricultural bookkeeping

(3) Total farms specializing

(4) Direction of specialization

(5) Pig-raising

(6) Cattle for slaughter

(7) Milk cows

(8) Fruit

(9) Total

(10) Regions (in above\*)

The shortage of coal is also an important barrier to increased hog production. This factor is listed as that which most seriously impedes an increase in production on more than 14 percent of the farms, and more than 75 percent of the farmers mention difficulties in buying coal.

An equally important factor making it impossible to increase the number of pigs is the question of farm buildings. Here it must be emphasized that in 1979 about 8.7 percent of the farms questioned undertook the construction of new facilities for hogs, but (mainly because of a shortage of building materials) only a third of these fully completed the investments they had begun.

The shortage of livestock facilities and difficulties with building new ones are making it impossible to expand the raising of pigs on about 13.6 percent of the farms.

Summing up, then, we can say that alongside the factor of profitability, a rise in hog production will depend at the present time on the size of the deliveries of the means of production from outside agriculture above all.

[No 14, 16-31 Jul 80 pp 29-31]

#### Cattle Production

(1981) The current economic-production situation in the realm of cattle production is similar to that in the realm of the production of pigs,\* that is, it is much worse than last year. To a great extent this is the result of an unfavorable situation regarding fodder for cattle after the most recent harvests. According to the assessments of the farmers we questioned, the recent harvests of fodder crops were higher than last year on only 40 percent of the farms. On more than 21 percent of the farms, and on a whole 48 percent of the farms in the Southwestern Region, on the other hand, there was a substantial decline in them. On nearly one out of every three farms investigated smaller harvests of meadow hay were also noted. Similar to the case of fodder crops, most of the farms (over 40 percent) on which there was a decline in the harvests of hay are located in the Southwestern region. GUS estimates show that total harvests of meadow hay throughout agriculture were about 2.5 percent lower than last year. A serious decline (of about 13 percent) was also noted in the production of sugar beets, the leaves and pulp of which represent an important element of cattle feed. There were smaller sugar beet

\*The economic-production situation for the raising of hogs was presented in the first part of this article, published in No 13, 1980



harvests on one farm out of every four which was engaged in the cultivation of sugar beets, and in the Southwestern region this figure was even one out of every two investigated. There has also been a universal decline in harvests of cereal straw, which usually played an important role in supplementing cattle feed resources, and in addition it is an important bedding material for stalls. As the result of the unfavorable harvests, more than 30 percent of the farmers say that the current fodder situation for cattle is worse than it was a year ago. On the other hand, nearly 26 percent of the farmers disagree. On more than 35 percent of the farms the fodder situation remained unchanged (Table 1). The relatively least favorable situation compared to last year is judged to be the fodder situation on farms specializing in raising milk cattle, an area which features the greatest dynamics for the growth of milk production. The production scale on these farms is strictly adapted to the resources of the farms' own fodder. For this reason any sorts of changes in fodder production are felt particularly keenly on these farms.

In the regional structure the greatest number of farmers assessing the current fodder situation as worse than last year are located in the Southwestern and Central Eastern regions, where the greatest decline in harvests of basic feed crops for cattle occurred.

According to the estimates of our respondents, the fodder resources currently held on every other farm are fully adequate for the planned number of head of cattle up to the period when they will shift over to the summer feeding system. On the other hand, we know now that on about 13 percent of the farms the accumulated fodder resources are not adequate (Table 2).

The largest percentage of farmers assessing fodder resources as adequate is located in the group of farms specializing in the production of beef slaughter animals and milk. This means that despite the relatively worse fodder situation compared to last year, particularly on farms specializing in milk production, the fodder resources accumulated on most of these farms will make it possible for them to carry out their production plans in full. Here it must be pointed out, however, that it is in this group of farms that we find at the same time the largest percentage of farmers (18-20 percent) who say that the fodder resources they currently have on hand are inadequate. These are usually farms in the Central Eastern and Central regions. The unfavorable fodder situation for cattle has greatly worsened the economics of cattle production and brought about a fixed decline in the total number of head of cattle, including young beef for slaughter in particular, because during a period of fodder problems, the farmers first of all eliminate the raising of young slaughter cattle, and only during the next phase do they begin to select cows for removal. This fact is confirmed by the results of the January livestock census, which shows that the total of number of head of cattle on private farms declined by 3.4 percent, while the number of cows declined 3.7 percent. At the same time, however, it is

Table 2. Assessment of Farm Fodder Resources for Cattle (Percentage of Total Number of Farms Investigated in Given Group)

(a) Assessment	(b) <i>Степень зажиточности, в которой обстоит дело с кормами для скота</i>				
	(b) <i>хорошо</i>	(c) <i>удовлетворительно</i>	(d) <i>плохо</i>	(e) <i>неизвестно</i>	(f) <i>без ответа</i>
Всего ферм (1)	48.5	12.7	19.6	3.5	15.6
Фермы, имеющие скот (2)	50.7	13.8	20.4	1.7	13.4
Фермы, имеющие скот и землю (3)	51.6	12.9	19.7	8.2	15.5
Всего ферм, имеющих скот (4)	48.5	8.4	8.4	13.1	21.5
Фермы, имеющие скот и землю (5)	50.4	19.3	13.9	0.0	9.1
Фермы, имеющие скот (6)	51.9	17.8	15.0	0.9	9.4
Фермы, имеющие скот (7)	51.8	1.9	11.8	21.0	23.5
Фермы (8)	50.1	13.0	17.5	4.1	15.3
Фермы (9)	47.7	17.0	18.2	3.0	14.1
Фермы (10)	50.4	13.2	21.2	2.4	12.8
Фермы (11)	51.9	7.9	12.9	6.2	11.9
Фермы (12)	51.2	12.0	14.8	5.1	16.9
Фермы (13)	49.1	12.8	19.1	1.9	17.1
Фермы (14)	48.6	19.0	16.0	2.9	13.5
Фермы (15)	49.0	10.1	15.0	9.1	16.8
Фермы (16)	49.7	17.0	13.4	2.8	17.1

Table 3. Assessment of the Profitability of Milk Production (Percentage of Total Number of Farms Investigated in Given Group)

(a) Assessment	(b) <i>Степень рентабельности производства молока</i>					
	(b) <i>очень высокая</i>	(c) <i>высокая</i>	(d) <i>средняя</i>	(e) <i>низкая</i>	(f) <i>очень низкая</i>	(g) <i>без ответа</i>
Всего ферм (1)	21.8	31.4	0.7	3.1	6.1	36.9
Фермы, имеющие скот (2)	25.7	40.1	0.4	3.7	4.2	25.9
Фермы, имеющие скот и землю (3)	21.4	31.2	11.2	8.9	8.2	15.1
Фермы, имеющие скот (4)	19.2	36.5	0.9	1.7	21.3	20.4
Фермы, имеющие скот и землю (5)	21.2	40.2	10.4	2.6	11.1	14.5
Фермы, имеющие скот (6)	21.1	31.8	10.6	1.4	9.1	25.8
Фермы (7)	19.2	21.8	7.4	7.4	19.1	24.9
Фермы (8)	20.1	31.2	9.7	1.1	9.1	28.8

(Note: 1)-(16) as in Table 1.

Table 2

- (a) Type of farm. (1) No response.  
 (2) Percentage of farms on which current resources of farm's own fodder are:  
 (3) Adequate.  
 (4) Too small.  
 (5) Don't know yet.  
 (6) No cattle.

Table 3

- (a) Percentage of farms considering milk production to be:  
 (b) Very profitable.  
 (c) Profitable but not profitable enough.  
 (d) Hardly profitable at all.  
 (e) Decidedly unprofitable.  
 (f) Difficult to say.  
 (g) No response.

with mentioning that during recent months we have observed some rise in farmers' interest in raising cattle, as shown first of all by the decline in the number of calves designated for sale and for slaughter. During the final quarter of 1979 the total sales of calves and untreated hides was 13.2 percent lower than during a similar period in 1978. The larger number of calves being fattened is creating the biological potential base for a rise in cattle production in fiscal 1980-1981. This growth will depend, however, both on the economic production factors and on the future fodder situation.

According to the assessments of the farmers we questioned, cattle-raising overall, despite the worsening of economic production factors, is still considered the most profitable sort of livestock production on most farms. This opinion is shared by more than 58 percent of the farmers. Only 29 percent of our respondents said that hog-raising was the most profitable sort of livestock production.

At the present time, similar to previous questionnaire research, the production of milk is considered to be the most profitable (Table 3).

Over 30 percent of the farmers say that milk production on their farms is very profitable, while about 39 percent say that it is indeed profitable but not profitable enough. About 5 percent of the farmers, however, say that milk production is decidedly unprofitable, and on farms which specialize in milk production this figure is 12 percent. These assessments are far less favorable than those presented in the fall of 1978 and the spring of 1979.

Nonetheless, it must be mentioned here that these assessments come from the period before the rise in wholesale milk prices which was introduced this past February. This increase (of 60 groszy per liter) significantly improved the profitability of production and will bolster the growth trends in the production and wholesaling of milk noted during the past few months. During the latter half of 1979, after a previous decline of several months, milk wholesaling was higher than during the similar period the previous year by about 5 percent. The intentions farmers have had up until now lead us to believe that during the next few months on one farm out of every five questioned we can expect a rise in the number of cows, but on about 12 percent of the farms there is the possibility that it will decline (Table 4). These tendencies are the most favorable in the Southeastern region, where a whole 39 percent of the farmers plan to increase the number of cows, while 11 percent plan to reduce it.

On the other hand, about 37 percent of the farmers plan to expand sales of milk, and in the Central and Northeastern regions this figure is about 46-47 percent. This means that the expansion of production and commodity orientation of milk on the farms investigated will occur not only by extensive expansion of the number of cows but also by increased milk productivity and limited internal consumption. Taking into account the fact that these intentions were expressed by most farmers before

Table 5. Farmers' Intentions in the Realm of Raising Cattle (Percentage of Total Number of Farms Investigated in Given Group)

(a) Investigative Group	(b) Aimed at a response		(c) No response		(d) Response		(e) Response		(f) Response	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Group 1 (1)	1.1	47.9	19.6	29.7	2.3	5.4	7.1	11.1		
Group 2 (2)	1.3	47.9	19.6	29.7	2.3	5.4	7.1	11.1		
Group 3 (3)	1.3	47.9	19.6	29.7	2.3	5.4	7.1	11.1		
Group 4 (4)	1.3	47.9	19.6	29.7	2.3	5.4	7.1	11.1		
Group 5 (5)	1.3	47.9	19.6	29.7	2.3	5.4	7.1	11.1		
Group 6 (6)	1.3	47.9	19.6	29.7	2.3	5.4	7.1	11.1		
Group 7 (7)	1.3	47.9	19.6	29.7	2.3	5.4	7.1	11.1		
Group 8 (8)	1.3	47.9	19.6	29.7	2.3	5.4	7.1	11.1		
Group 9 (9)	1.3	47.9	19.6	29.7	2.3	5.4	7.1	11.1		

Key:

- (1)-(9) as in Table 1
- (a) Type of farm
- (b) Raising cattle for slaughter
- (c) Raising cows
- (d) plan to increase
- (e) plan to keep the same
- (f) plan to reduce
- (g) No response



the announcement of the rise in wholesale milk prices, we can imagine that now even more farmers are planning to increase milk sales.

Farmers' intentions in the realm of the production of slaughter beef animals (table 4) are far less favorable than those for milk production. The percentage of farmers who intend to increase the number of head of beef slaughter animals equals the percentage of farmers with the opposite intention. Taking into account the fact that the farms which we asked are usually stronger economically than the average for the country, and therefore have more progressive production attitudes, on the scale of all private agriculture we should count on the possibility that the decline in the number of head of beef slaughter animals may be maintained in the near future, and along with this will go a decline in the production and wholesaling of beef slaughter animals. In order to turn around these trends, it is essential first of all to raise the wholesale prices on beef slaughter animals as quickly as possible.

The research shows that at present the profitability of the production of beef slaughter animals is not assessed to be very great either in absolute terms or in comparison to other directions of livestock production. Nearly 4 percent of the farmers believe that slaughter beef production is decidedly unprofitable, and 9 percent believe that it is on the borderline of profitability (nearly unprofitable). The profitability of slaughter beef production is assessed to be particularly unfavorable on farms which specialize in cattle production, including both those specializing in milk and those specializing in slaughter beef (Table 5).

Compared to the production of pork slaughter animals, beef slaughter animals are considered to be more profitable on only 26 percent of the farms, while the opposite situation exists (pork slaughter animals more profitable) on more than 28 percent of the farms. On the other hand, back in the spring the number of farmers who considered it more profitable to produce beef slaughter animals than pork slaughter animals was greater than the number of farmers expressing the opposite opinion.

Compared to the production of milk, the production of beef slaughter animals is currently more profitable on about 18 percent of the farms, while on more than 54 percent of the farms it is considered to be more profitable to raise milk cows.

Alongside the fact that production is not very profitable in either absolute or relative terms, the raising of beef slaughter animals, similar to that of milk cows, is limited by a number of various other factors. Among the most important of these, one farmer out of every five questioned lists the shortage of labor and undermechanization.

Table 1. Assessment of Profitability of Producing Beef Slaughter Animals (Percentage of Total Number of Farms Investigated in Given Group)

Group of farms (h)	Factors limiting the production of slaughter beef animals					
	(a) Lack of fodder	(b) Lack of pasture	(c) Lack of water	(d) Lack of labor	(e) Lack of capital	(f) Lack of technical equipment
1. Farms with slaughter animals (1)	26.0	33.3	6.4	2.1	16.8	17.4
2. Farms with slaughter animals (2)	17.6	42.9	8.5	3.1	16.2	11.4
3. Farms with slaughter animals (3)	9.0	37.8	11.4	5.0	18.4	17.9
4. Farms with slaughter animals (4)	10.4	29.9	9.8	2.6	21.3	23.7
5. Farms with slaughter animals (5)	1.9	6.6	18.2	7.8	3.9	2.6
6. Farms with slaughter animals (6)	11.2	41.2	10.2	7.1	12.3	13.8
7. Farms with slaughter animals (7)	5.9	27.9	4.4	4.4	30.9	26.5
8. Farms with slaughter animals (8)	17.1	24.4	4.9	3.5	17.1	14.6

[198]

(a) Percentage of farms assessing the production of slaughter beef animals to be:

(b)-(h) and (1)-(9) as in Table 3

In second place (about 17-19 percent of the farms) is listed the shortage of the farms' own fodder, and on about 13 percent of the farms the cause of this shortage is the lack of good meadows and pastures.

On one farm out of every ten the lack of farm buildings and difficulties in constructing them is a barrier to the development of cattle production.

A similar percentage of farmers considers the difficulties in buying animals for raising and the high prices on them to be the major factor making it difficult to increase cattle production, especially milk cattle production. According to GUS data, the mean price of a one-year old heifer on the free market exceeded 9,000 zlotys in October 1979 and was about 7 percent higher than during a similar period the previous year. The price of heifers although it is listed by farmers as a factor standing in the way of production growth, shows the increased interest in expanding the number of milk cows.

Further down the list of factors having the most adverse effect on growth of cattle production we find inadequate supply of concentrated feed and roughage, as well as poor wholesale organization and abuses in the wholesale system, especially in the case of milk.

Therefore, in general we can say that the possibilities for a further increase in livestock production, as for all agricultural production, after all, depends mainly on the creation of economic conditions favorable

Table 1. Assessment of Fodder Situation for Hog-raising (Percentage of Total Number of Farms Investigated in Given Group)

(A) Grupowanie	Ocena sytuacji paszowej w porównaniu z potrzebą			
	(b) (c) <i>Wystarcza</i>	(d) <i>Brak</i>	(e) <i>Brak</i>	(f) <i>Brak</i>
Wielokierunkowe (1)	17.9	32.6	42.3	7.3
Kierunkowo-rolnicze (2)	17.2	31.9	40.4	7.6
Specjalizujące się ogólnie (3)	16.5	29.5	32.3	22.0
W tym w kierunkach: (4)				
— trzoda chlewna (5)	20.1	27.3	49.6	2.9
— bydło mleczne (6)	16.9	29.9	18.2	35.1
— bydło mięsne (7)	13.2	29.6	29.1	31.8
— owoce (8)	10.3	21.9	29.6	41.2
Ogółem (9)	17.2	32.1	38.3	12.4
W tym regiony: (10)				
— I	11.3	23.7	48.7	11.3
— II	17.6	26.1	42.8	13.2
— III	15.7	31.2	17.1	13.7
— IV	19.7	31.5	28.1	16.4
— V	16.1	31.1	41.1	8.1
— VI	16.2	32.1	43.7	8.1
— VII	11.7	31.2	40.9	11.1
— VIII	10.3	33.5	37.8	18.3

Table 2. Assessment of Farm Fodder Resources for Hog-raising (Percentage of Total Number of Farms Investigated in Given Group)

(A) Grupowanie	Ocena zasob. w których słowny zasób pasz (g) wliczony dla trzody chlewnej jest:				
	(h) <i>Wystarcza</i>	(i) <i>Wystarcza</i>	(j) <i>Wystarcza</i>	(k) <i>Wystarcza</i>	(f) <i>Brak</i>
Wielokierunkowe (1)	12.7	30.1	17.0	6.0	3.9
Kierunkowo-rolnicze (2)	18.9	31.1	16.7	9.1	1.8
Specjalizujące się ogólnie (3)	16.1	26.9	7.1	13.2	7.1
W tym w kierunkach: (4)					
— trzoda chlewna (5)	16.1	27.1	12.1	6.9	4.0
— bydło mleczne (6)	12.9	15.6	2.6	29.9	9.1
— bydło mięsne (7)	12.5	15.1	3.7	28.1	10.0
— owoce (8)	27.9	16.2	5.9	31.8	16.2
Ogółem (9)	24.1	31.9	13.7	11.3	4.1
W tym regiony: (10)					
— I	20.9	30.1	11.0	12.1	3.8
— II	21.2	30.2	12.1	9.6	5.2
— III	11.9	29.9	8.3	14.5	3.7
— IV	11.7	23.5	11.1	15.8	3.8
— V	11.9	28.0	16.7	10.5	1.9
— VI	12.9	31.9	13.8	7.1	4.3
— VII	27.2	42.6	15.1	11.1	3.1
— VIII	11.1	31.6	13.0	10.8	6.5

(Key to Tables 1 and 2)

- (1) Multipurpose  
(2) Conducting agricultural bookkeeping  
(3) Total farms specializing

- (4) Direction of specialization  
(5) Hog-raising  
(6) Slaughter cattle  
(7) Milk cows  
(8) Fruit

to production and on the influx of a stream of the basic means of production from nonagricultural sectors of the national economy. Here it is mainly a question of insuring agriculture supplies of proper farm tools and machinery, coal, chemical fertilizers, building materials, and also concentrated feed mixes. The significance of this issue was emphasized particularly strongly during the deliberations of the Eighth Party Congress.

10790

CSO: 2600



## BRIEFS

SWEDEN-POLAND FERRY DISCONTINUED--Ferry services between Karlskrona and Gdansk in Poland will be discontinued on 5 January, according to Radio Blekinge. The route was established a year ago and was to be run experimentally for 3 years. The Polish side has now declared they can no longer receive tourists owing to the current political and economic situation in the country. The present shortage of food in Poland is said to be a strong contributory cause. In Poland it is considered likely that the ferry services can be reestablished after 2 years at the earliest. [Text]  
[LD151210 Stockholm Domestic Service in Swedish 1130 GMT 15 Dec 80]

CSO: 3109

## SUCSESSES OF AERONAUTICAL INDUSTRY DISCUSSED

Bucharest VEAC NOU in Romanian No 11, Nov 80 p 3

[Article by George Popescu: "Romanian Airplanes--Praise and Records"]

[Text] Inheriting a tradition of more than half a century, the Romanian aeronautical construction industry is currently experiencing an unprecedented development, illustrated by the realization of a full range of aviation programs, from gliders to agricultural planes, from helicopters to the ROMBAC 1-11 intermediate range courier airplane. These airplanes are being constructed on the basis of original designs or in collaboration with partners with a strong tradition in this field such as the USSR, France and England.

A number of achievements of Romanian airplane designers and builders are registered among the successes obtained by the Romanian economy in all fields, especially in industry. The gliders and monoplanes of various types designed by Eng Iosif Silimon and constructed in the Enterprise for Aeronautic Constructions in Brasov have carried the traditional insignia of our aeronautical industry--IAR [Romanian Aeronautical Industry]--in almost 20 countries of North America, Europe, Asia, South America and Australia. The best known specialized reviews (SOARING in the United States, the Australian review GLIDING, AVIASPORT in France, etc) have published words of praise for Romanian gliders, stressing their good performances and irreproachable execution: "logical, solid construction," "a very competitive airplane on a par with club gliders," "I am completely satisfied with and captivated by the glider."

Also, airplanes presented during recent years at international aircraft exhibits in Farnborough, England, Le Bourget, France and Hannover, West Germany have received a good reception from the public and from specialists, thus confirming the results registered during their utilization. Among the successes obtained by Romanian gliders and motor gliders one should mention, first of all, the world record of 829 km, round-trip, achieved by the IS-28B2 bilocular glider on 7 April 1979 in Pennsylvania by the pilots Tom Knauff and Robert Tawes IV.

The same type of glider obtained an annual average of 1,000 hours of flight in clubs in Australia during the 1978-1980 period, taking first place among similar gliders utilized in this country.

Appearing on the world market in 1977, the IS-28M2 motor glider has already obtained successes which place it among the most sought-after planes in its class.

Between 15 August and 4 October 1978, the motor glider completed a flight through 48 states of the United States, with Hal Lawrence as its main pilot; this was the first circumstatal flight by an airplane of this category.

Flying three motor gliders of the same type, Australian pilots Charles William Riley, Bert Persson and William Schoon completed a veritable air rally of 22,000 km (154 hours of light) between Brasov, Romania and Tocunwal, Australia from 8 May to 3 July 1980.

These performances demonstrate both the high level of Romanian gliders and motor gliders and the ability of Romanian designers and builders to achieve increasingly more complex airplanes, with superior qualities, which are competitive on the international level.

CSO: 2700

END

**END OF**

**FICHE**

**DATE FILMED**

~~79~~ Jan 1981

DD.